

**Access to Microfinance & Improved Implementation of Policy Reform  
(AMIR Program)**

**Funded By U.S. Agency for International Development**

**JORDAN CAPITAL MARKETS  
Customize Depository Software**

*Final Report*

**Deliverable for Capital Markets Component  
Task No. 5.7.10  
Contract No. 278-C-00-98-00029-00**

*July 30, 2000*

*This report was prepared by Bill Gorman, in collaboration with Chemonics International Inc., prime contractor to the U.S. Agency for International Development for the AMIR Program in Jordan.*

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**Securities Depository Center**

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**Clients Identification System  
User's Manual**

**DRAFT**

**Version 1.0  
March 2000**

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**Clients Identification System**

# **User's Manual**

**Version 1.0**

**March 2000**

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## 1. **SYSTEM OVERVIEW**

The Jordan Securities Depository Center's (SDC) Electronic Contracts System consists of two main parts. The first part enables brokers to clearly identify their client and shareholders. The second part receives trade transactions from the Amman Stock Exchange's Electronic Trading System & generates settlement contracts (deeds) using the clients' data.

Following are the steps for using this system to its fullest:

### ***SDC Preparation Stage:***

- This stage is the responsibility of the administrator and will not be discussed in this manual. For more information refer to the *Operations Manual*.

### **1.1 Brokers Preparation Stage:**

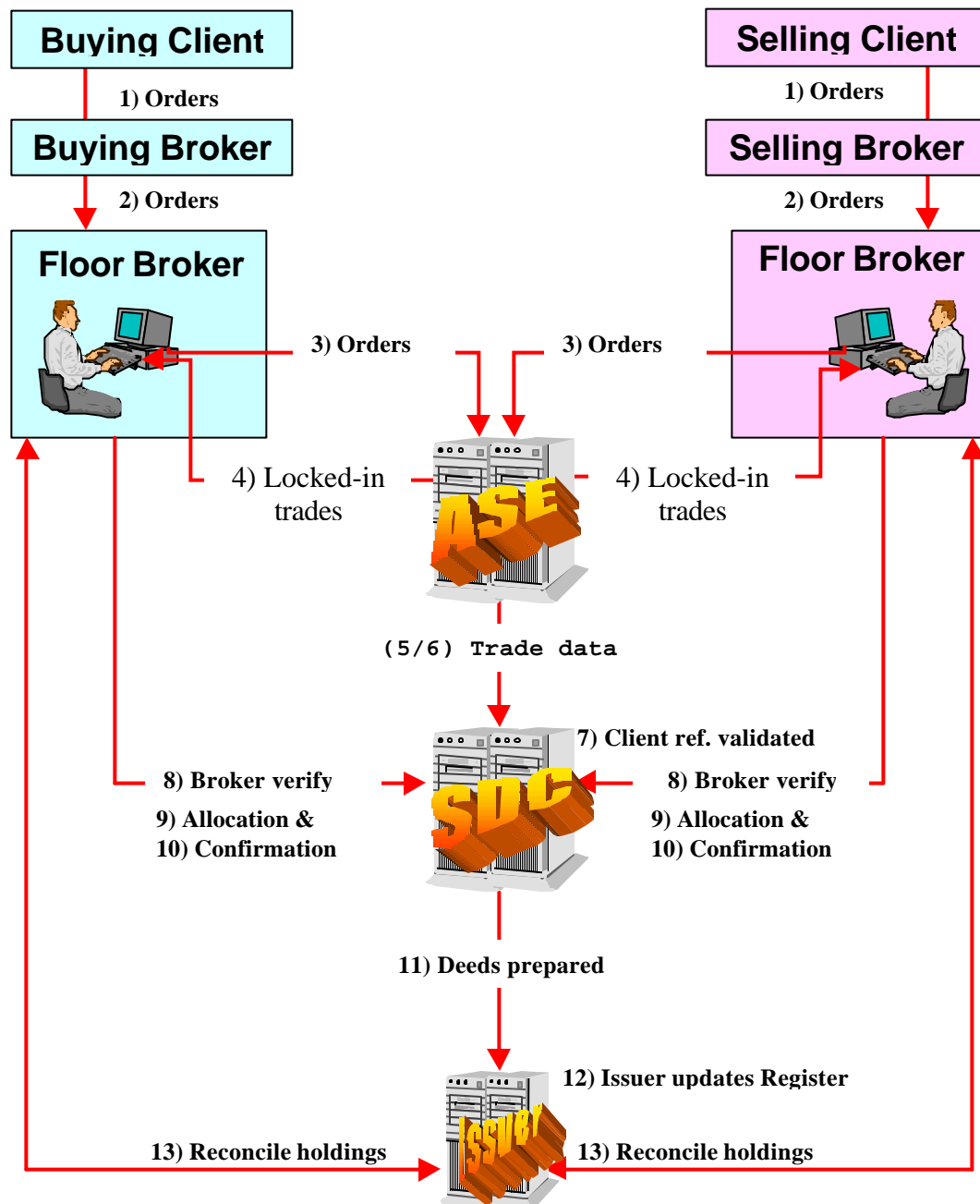
- Identify clients; enter name, address and other information about each client.
- Assign a client reference number to each client.
- Confirm reference numbers assigned to clients.
- Define the clients' allocations information.

### **1.2 Brokers Daily Transactions:**

- Add new clients to system.
- Update client information
- Confirm entered data.
- Assign reference numbers to new clients.
- Confirm new clients reference numbers.
- Confirm buy and sell transactions received from the stock exchange.
- Add buy and sell allocation transactions.

## 2. Settlement and Registration of Electronic Trades

Following are the steps taken to settle and register an electronic trade:



**1. Order Entry:**

1. Broker receives Buy /Sell order from client.
2. Broker sends order to Amman Stock Exchange (ASE) trading floor.
3. Floor Broker enters order into ASE's automated trading system (ATS).
  - (1) The Broker's Client Reference number is entered with the order. This is the number that a firm assigns to its client. It is a mandatory field. It must be identified in the SDC Client Identification system. That system assigns a unique SDC number to each client.
  - (2) ATS reports orders to the submitting broker's floor terminal at time of entry. The Broker's Client Reference Number appears on the screen report.
  - (3) ATS disseminates information about all open orders to all brokers via the ASE/SDC network. No broker or client data is disseminated.
  - (4) ATS disseminates order information to the public via Reuters, Access and StockNet Live (SNL). No broker or client data is disseminated.

**2. Trade Execution:**

4. T+0: Deal is struck via the exchange's automated order match (trading) system.
  - (1) ATS reports trades to the buying and selling brokers on their Trading Floor workstations immediately upon execution.
  - (2) ATS reports each trade to ASE brokers via the ASE/SDC network.
  - (3) ATS reports each trade to the public via Reuters, Access and StockNet Live (SNL).
  - (4) At the end of each trading day, the exchange delivers to each broker, a printed report listing the trades they executed that day.

**3. Clearing and Settlement:**

5. T+0: The trade data is received by the SDC via diskette from the ASE.
6. Received data is loaded into SDC computer system.
7. SDC system checks if each trade has a valid SDC Client Reference Number.
  - (1) Each broker must know the SDC Client Reference Number for each of his clients and must supply accurate Client Reference Numbers to all trades. Brokers who supply inaccurate information may be penalized.
8. Each broker performs an on-line check of his buy and sell contracts via his SDC workstation.
  - (1) The buying broker delivers a check to the selling broker. The selling broker then confirms the transaction on his SDC workstation.
  - (2) If the selling client has a certificate, the broker must deliver it to the Issuer prior to settlement. SDC will deliver certificates for its participants to the issuers on a no obligation envelope-delivery type service.

9. The broker checks if the trade should be allocated to multiple client accounts. NOTE: Allocations are permitted only for approved accounts and as instructed by the buying and/or selling client.
- 10) The broker on his SDC workstation confirms the contract.
- 11) The SDC system inserts buying and selling client information (name, SDC number, address, etc.) on a Transfer Deed (contract). SDC prints the Deed and then stamps and signs it and delivers it to the Issuer. No obligation is assumed by the SDC other than to promptly deliver the deed to the Issuer.

**4) Registration:**

12. The shareholder department of the relevant listed company updates its shareholders list (Register) and backdates beneficial ownership to T. By default, SDC assume the deed is correct unless it is returned to the SDC within three business days.
13. Brokers and Custodians periodically reconcile holdings with the Issuers.



### **3. System Standard Functions**

The Following describes the standard screen design that is used throughout the system.

#### **3.1 The Menu Bar**

The menu bar consists of drop down menu items that identify functions to be performed. The drop down menus is:

- Entering Data Menu: Activates the clients data entry form and split screen.
- Confirms Entered Data Menu: Activates the forms that are used to confirm the entered data.
- Trade Allocations: Activates the buy and sell trades for allocations.
- Querying Menu: Activates the forms that enable the user to query the data.
- Reports Menu: Activates the forms that are needed to generate reports.
- System Administrator Menu: Used to change system password.

#### **3.2 The Main Form**

The main form displays and enables manipulation of the fields of an activated form. Activating a form displays an empty form through which users can Add, Query and update information on the fields.

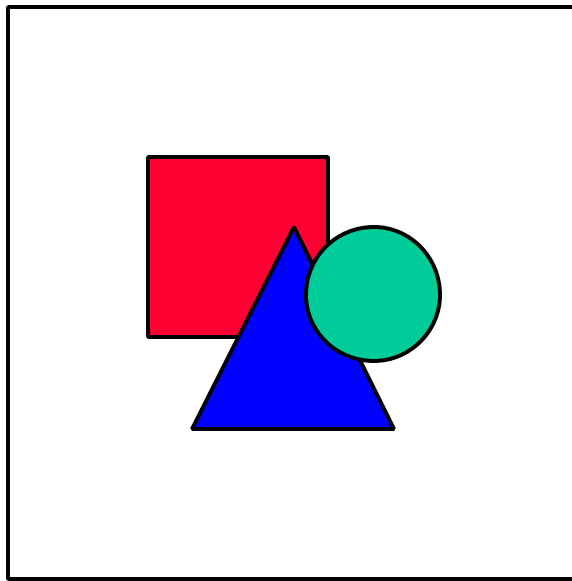
##### **3.2.1 Form Page Tabs**

Page tabs act as multiple forms of related information in one view. Each page tab displays fields related to the main form. Initially the first page tab is shown; to toggle between pages the user clicks on the tab header.

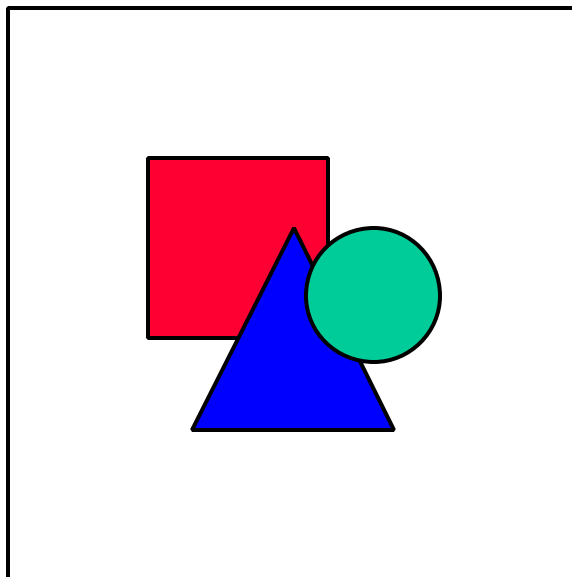
#### **3.3 The Function Bar**

This bar appears at the lower part of the screen and includes all standard functions. Some forms may contain additional functions, other forms, for security purposes, may not include all functions.

- Add Function
- Query Function
- First Record Function
- Previous Record Function
- Next Record Function
- Last Record Function
- Save Function
- Exit Function

***Add Function***

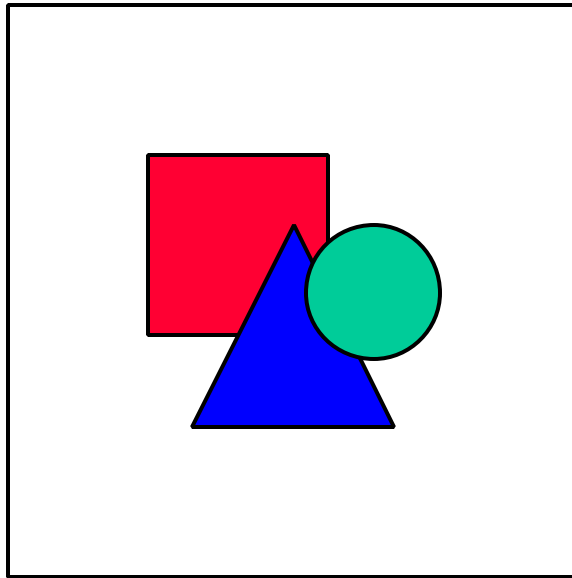
Activates the Add Module and clears the fields displayed on the form in preparation for the entry of a new record in the database.

***Query Function***

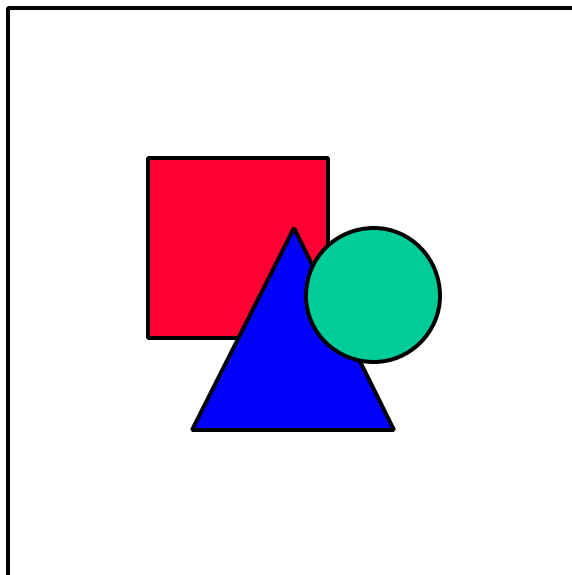
This function is used to find and view a record of the database or set of records that matches a certain criteria. Pressing this button clears all displayed fields and prepares the form to accept a value on any field. In some forms searching may occur in one field only, as search criteria. After entering the value, the user may press the Query function or F8 to accept the value and start searching or Ctrl+Q to abort. If the search criterion matches any of the data on the database, the first record found appears on the form. The user can move between selected records using the navigation buttons described below (First, Previous, Next and last).

***Editing a record***

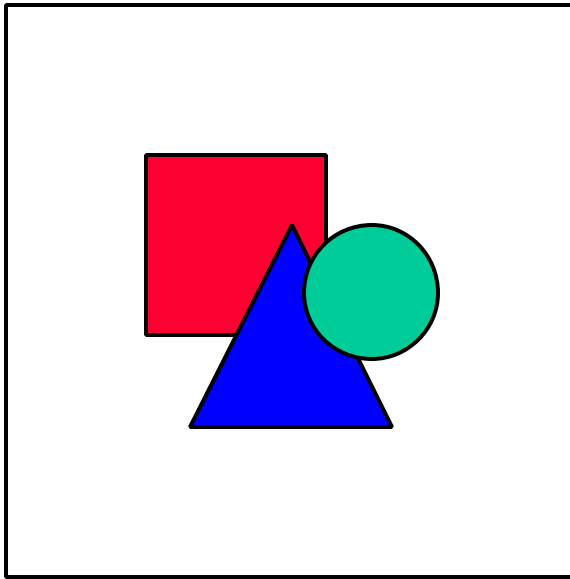
After entering a query (described above), the user is allowed to modify any of the fields in preparation for editing the information within the record of the database. Depending on the form, the user may not be allowed to modify all the fields on the form.

***First Record Function***

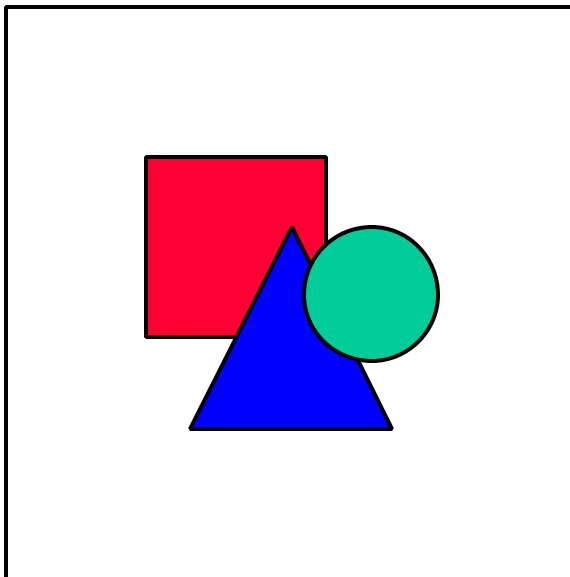
Go to the first record of the data set.

***Previous Record Function***

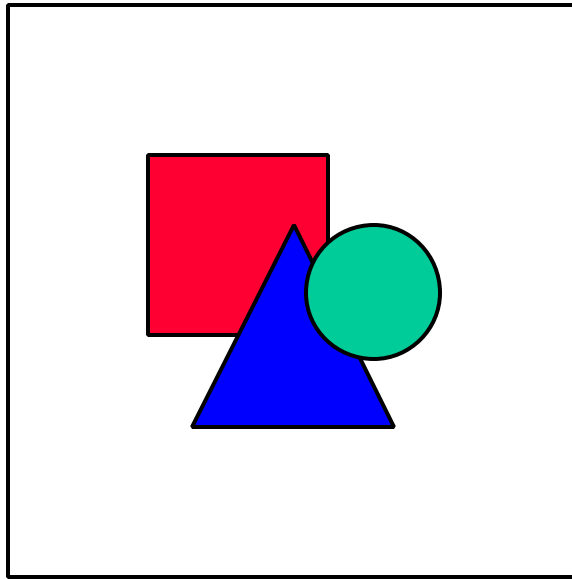
Go to the previous record, if the first record is reached nothing will happen.

*Next Record Function*

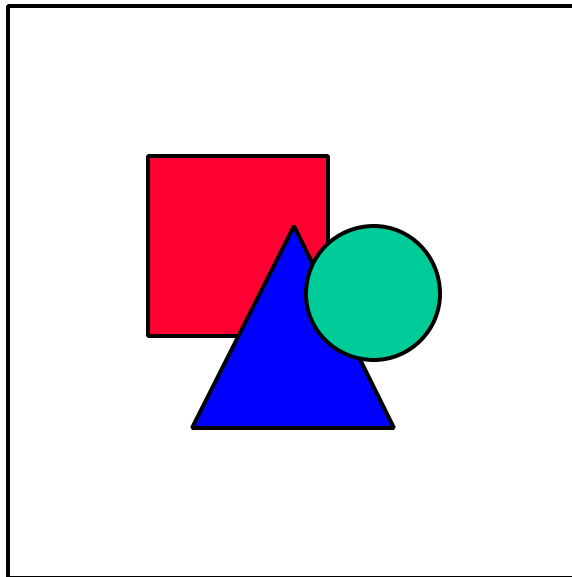
Go to the next record. If the last record is reached nothing will happen.

*Last Record Function*

Go to the last record of the data set.

*Save Function*

Saves the newly entered record or the newly edited values of the record and all other records in the database that have been changed since the last save or cancel function.

*Exit Function*

This function exits the active form. If any of the records have been changed and not saved, the system displays a message asking the user to either save the form or cancel changes.

### **3.4. Drop Down Selection Field List**

Whenever a field has an arrow displayed to the right of the entry field, then the information to be entered into this field must be picked up from a list that drops down upon clicking on the arrow. The displayed information is usually a list of previously coded items of information for the field to be entered. The selected information will be displayed in the field.

### **3.5 Standardizing Arabic Names Data Entry**

To simplify searching Arabic names, the system automatically removes any extra spaces between names, standardizes the different forms of some of the characters that are quite similar in Arabic by replacing them with a certain character (e.g. stand-alone Alef, Alef with Upper Hamzeh, and Alef with Lower Hamzeh are all replaced with stand-alone Alef). Also, the extension character is removed from all entered names.

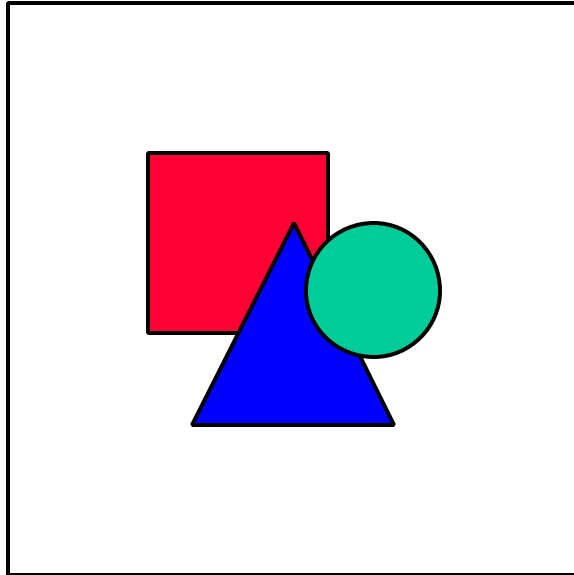
### **3.6 On-line Help**

The system provides an on-line help on each form/field in the system. The user may press F1 any time to get full information about the selected form/field.

### **3.7 Data Entry Language**

All forms enable data entry in Arabic mode by default except for the English field such as Client Name in English. Entering these fields switches the language to English. After exiting these fields the language is switched back to Arabic. However, all fields permit entry in either Arabic or English. In order to switch the mode to English the user may press the right Shift + Alt keys, to switch to Arabic mode the user presses the left Shift + Alt keys.

## 4. Logging In



To use the system, the user must first login using a valid user name (case-sensitive) and a password (case-sensitive). The system administrator supplies both the user name and password to the user. Users may change their password at any time. Users are encouraged to change their password at least one a month. The system provides a reminder to change the password periodically.

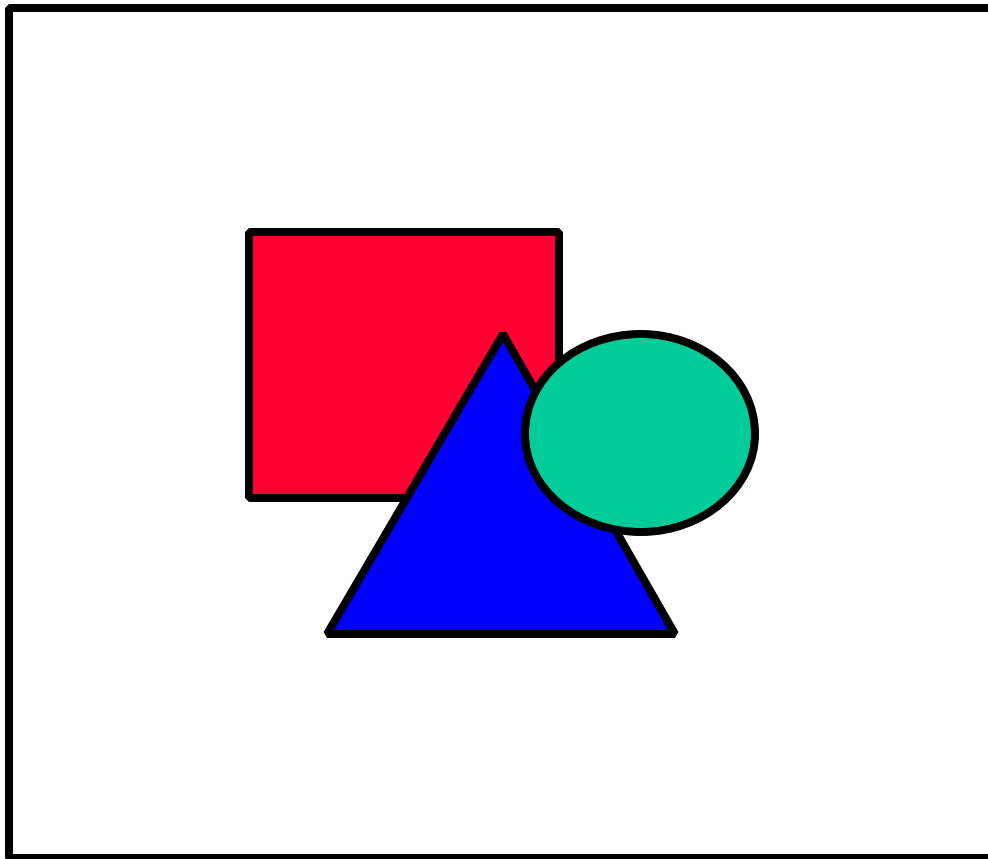
To login the user should follow the following steps:

- Enter the user-name (case-sensitive).
- Enter the password (case-sensitive). While typing the password asterisks will appear instead of the actual typed-in letters. This is to keep the password confidential.
- Click Ok to login or Cancel to exit. If the supplied user-name and/or password are incorrect the cursor will be positioned back on the user-name field in order to re-enter the correct information.

## 5. Entering Data Menu

The Data Menu gives the user access to the following data-entry forms:

1. Client Profile: Allows brokers to enter or update client information. The brokers use this form connect the SDC client number to the broker's client number.
2. Clients' allocations form: Used to allocate clients.
3. Exit: Exits the system.



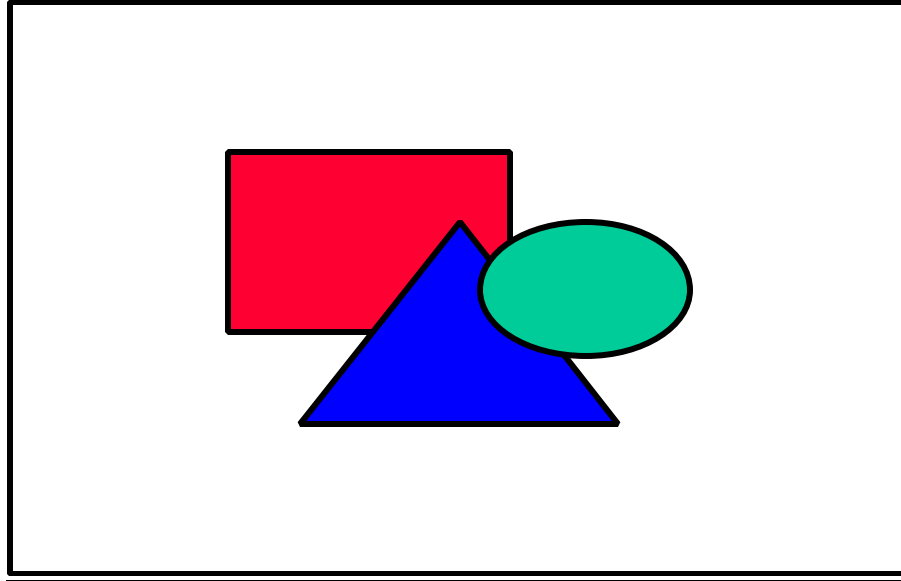


## 5.1 Clients Profile

Brokers can enter or update information about their clients using the client profile form.

Page 1:

The first page contains the client's main information; Following is a description of the fields and the validation of each:

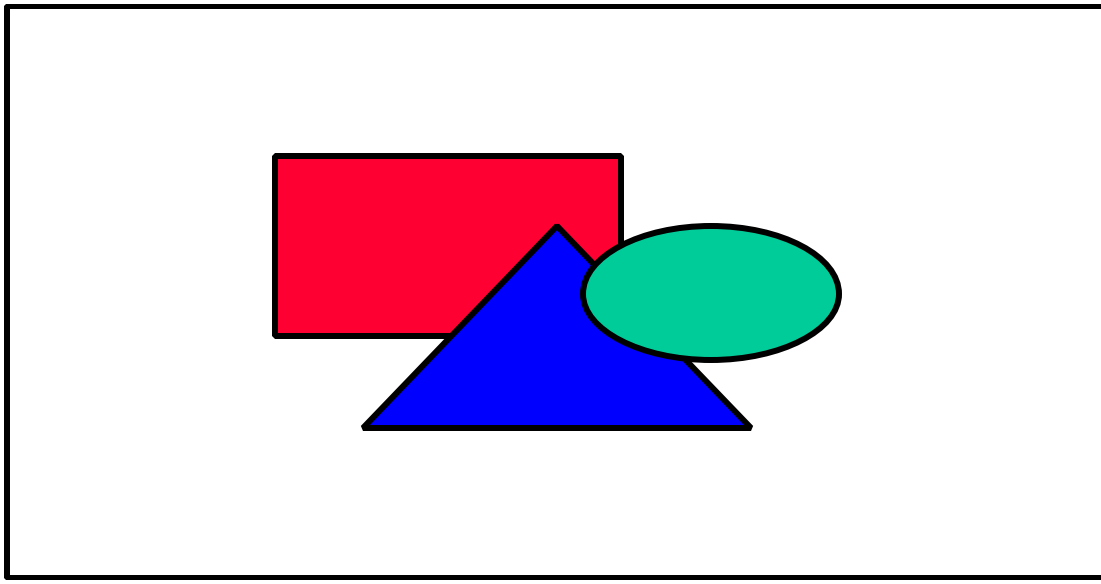


Field	Description
Client Type	A required field that has the following predefined values: 1. Jordanian Individual 2. Non-Jordanian Individual 3. Jordanian Company 4. Non-Jordanian Company
Correspondence Language	A required field that has the following predefined values: 1. Arabic 2. English The default value is Arabic.
SDC Client Number	This is the number that the depository and registry use to identify each client throughout the system. It is a unique and required field.  If the client type is a Jordanian Citizen then the Client Number is his/her National ID number, otherwise it is a system generated number and may not be edited by the user.

Salutation	This is a required field with a list of predefined salutations that the user can choose from. However, if a new salutation is needed, the user can simply type it in the provided space. The new salutation will be saved for the selected client; however, it will not be added to the predefined list.
Client Name	<p>The full official name of the client. This field is required but may be duplicated. If the entered name is duplicated, the system will display a warning message but the user may ignore the message.</p> <p>If the Client Type is a Jordanian Citizen then the name must be at least four syllabi, else it must be of at least two syllabi.</p>
Category	<p>A required field that has the following predefined values:</p> <ol style="list-style-type: none"> <li>1. Individuals</li> <li>2. Companies</li> <li>3. Government</li> <li>4. Investment and Pension Funds</li> <li>5. Institutions</li> </ol> <p>Depending on the client type, some of the categories may not be applicable for all the clients' types. For example the Jordanian Individual client type cannot be of Companies category type.</p>
Nationality	A required field that has predefined values. The values are defined by the system administrator.
Identification Document Type	<p>A required field that has the following predefined values:</p> <ol style="list-style-type: none"> <li>1. Passport</li> <li>2. Civil National Id Card</li> <li>3. Military Id Card</li> <li>4. Company Registration Card</li> </ol>
Identification Document Number	A required field that has the number of the corresponding Identification Document Type.

## Page 2: **Client's address**

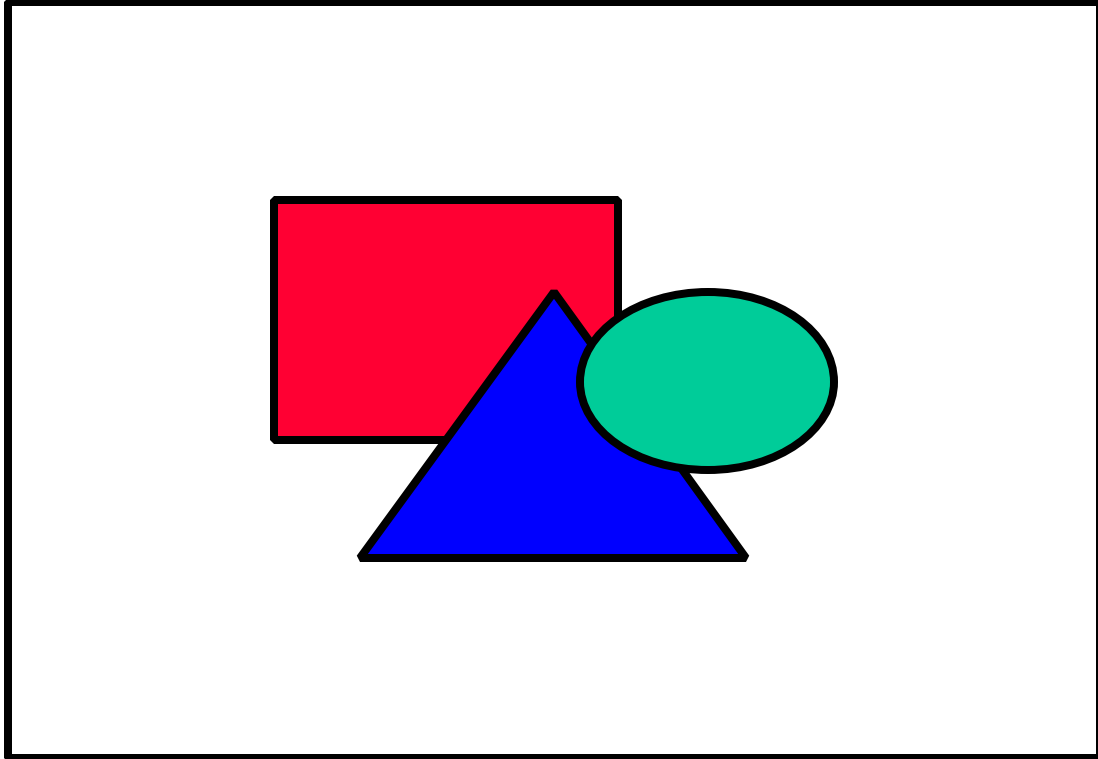
The second page contains the client's address and country as follows:



Field	Description
Country	A required field that has predefined values. The values are defined by the system administrator.
City	
Postal Code	
P.O. Box	
Address	
Telephone	
Fax	
E-Mail	

### Page 3: **Client's reference number**

To ease data entry for brokers especially when entering orders in the Automatic Trading System (ASE), each broker will be able to use his own numbering system to identify his clients. The number may be alphanumeric, numeric or a combination. Hence, the client may have a different Reference Number with each broker. For example client John Smith with a National Id Number of 1234567890 can have a Reference Number 1 with broker A and Reference Number 15 with broker B and Reference Number H123 with another broker.



Each broker can add clients only to his own list.

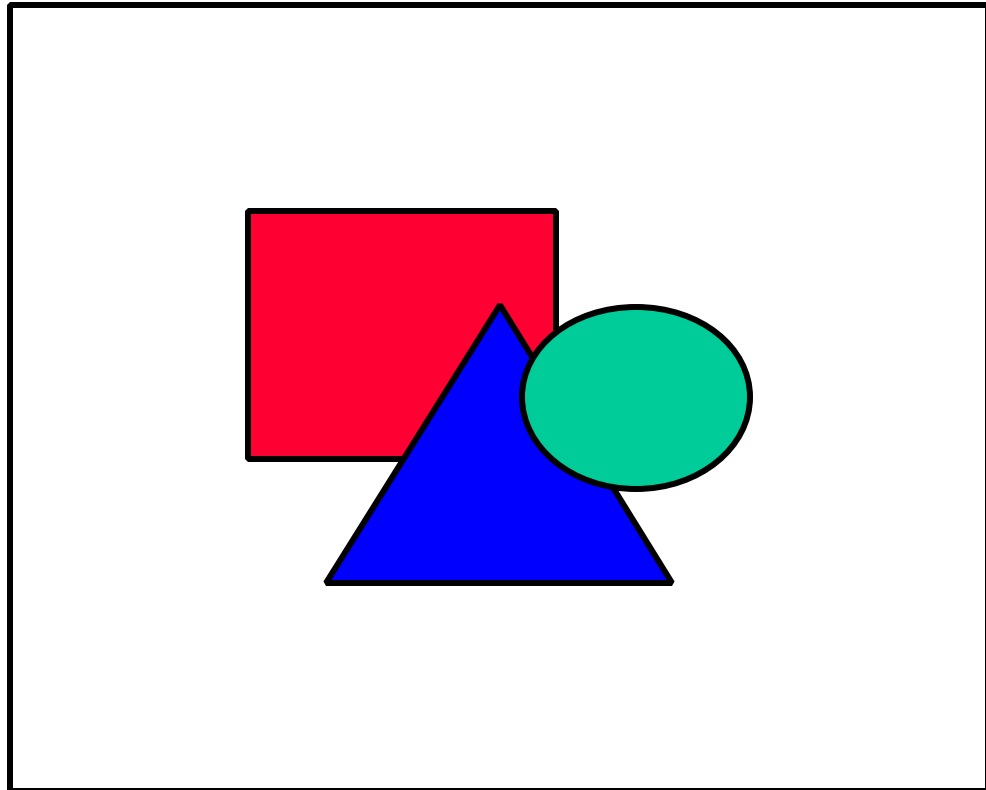
Following are the fields that must be entered:

Field	Description
Client Reference Number	The user must enter the Client Reference Number. This number is required and must be unique per broker. For Example broker A may have a Client Reference Number of 15 for John Smith and Broker B have a Client Reference Number of 15 for Joe Black.
Account number	A required field that has the following values: <ol style="list-style-type: none"><li>1. Individual account</li><li>2. Joint account</li><li>3. Restricted allocation account.</li><li>4. Non-Restricted allocation account.</li></ol>

## 5.2 Client Allocation Form

Clients may have one of four different account types. Two of these account types (Joint and Restricted) are allocated through this allocation form.

The form consists of two parts. The upper part is the header that contains the main client reference number, client SDC number, client name, client type, and account type. None of these fields can be updated. The lower part of the form contains a list of the clients to whom the shares will be allocated.



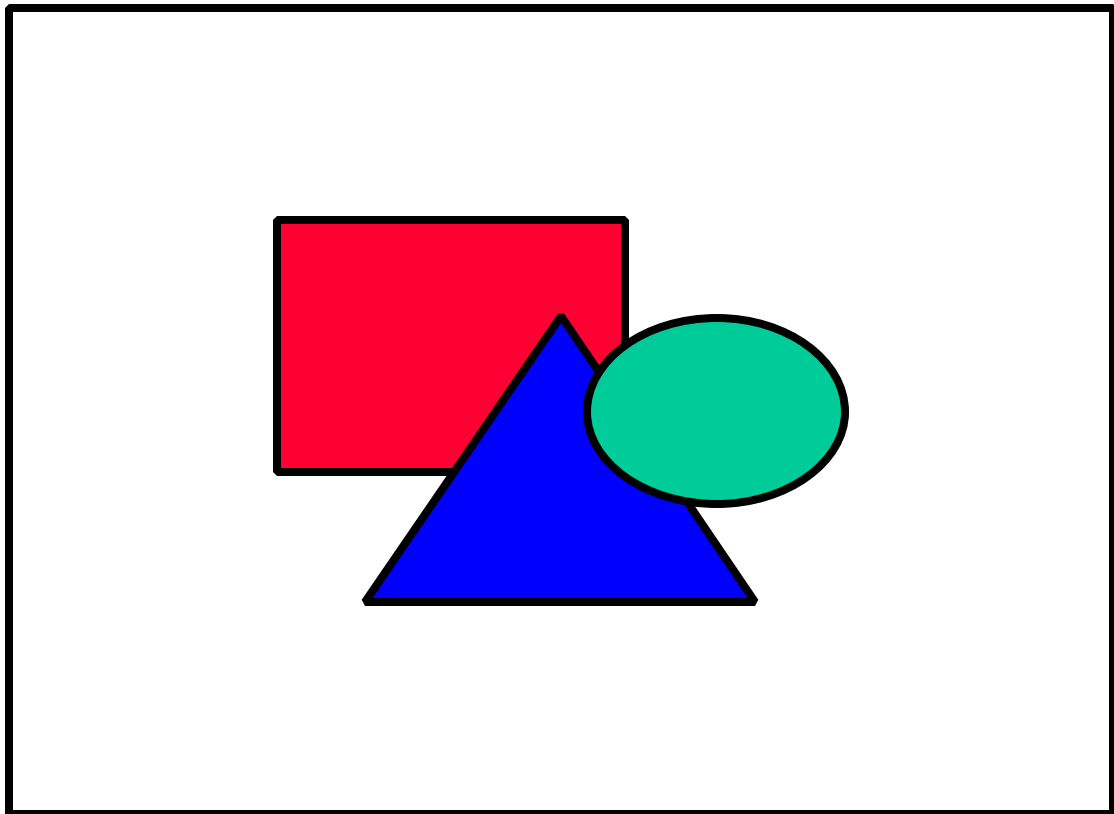
Field	Description
Client Reference Number	<p>A valid client reference number. The user may press F9 to get a list of all the clients to select from.</p> <p>After selecting the client number, SDC client number and name will appear on the other columns.</p> <p>In the joint accounts, the main client cannot be one of the sub clients, while in the restricted allocation accounts; the main client may be one of the sub clients.</p> <p>The user may delete the client records by pressing Shift+F4.</p>

## 6. Confirm Data Entry Menu

Data Entry Confirmation Forms are used to confirm that the data entry has been properly done. This is only a precautionary procedure to insure proper data integrity. Not going through this procedure will not have any effect on the usual workflow of the system.

The system has the following data entry confirmation forms:

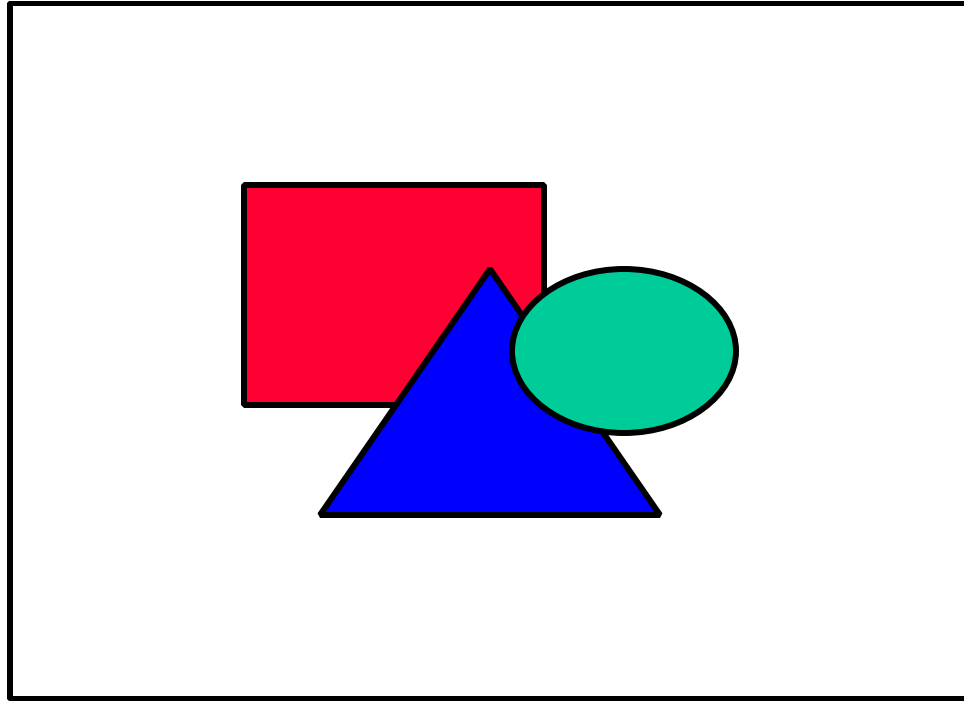
- 6.1 Clients Profile Confirmation Form
- 6.2 Sell Transactions Confirmation Form
- 6.3 Buy Transactions Confirmation Form





## 6.1 Clients Profile Confirmation

Using the Client Profile Confirmation Form, the brokers can check whether their clients profile information has been properly entered and confirm that the information is correct.



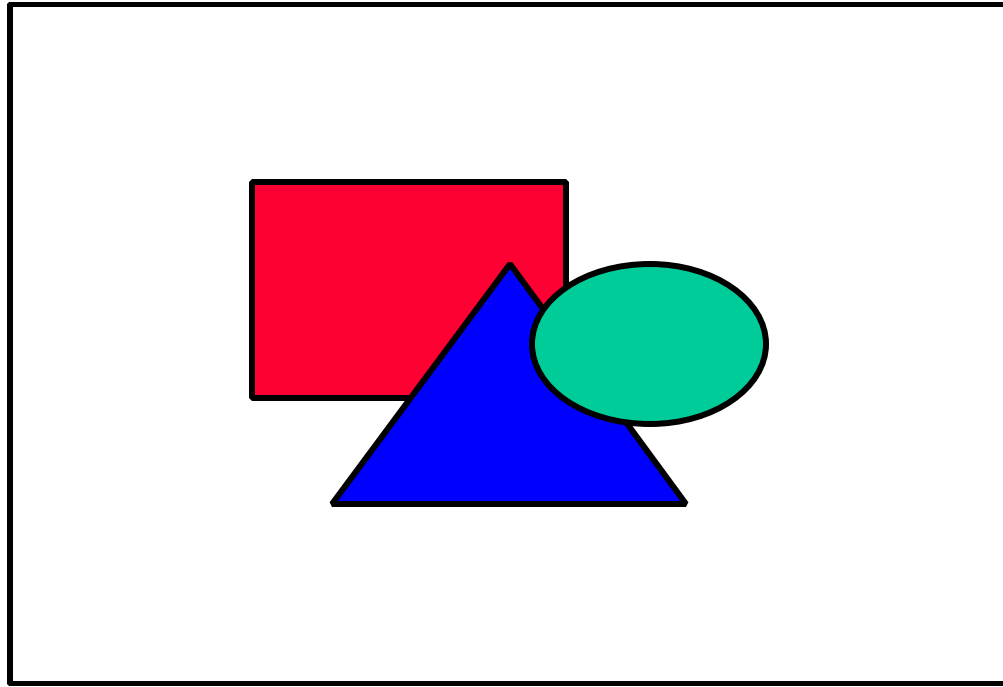
To confirm the profile of a specific client

- Press <<Query>>: All the fields will be dimmed (the fields background color will be grayed) except the SDC Client Number (this is the only field that can be edited at this point).
- Enter a valid SDC Client Number:
- Press <<Query>>: All the fields will be enabled for data entry again.
- Audit entered information.
- Make changes to the client reference number if needed.
- Press <<Confirm>>.

The reference number entered/edited on this form follows the same validation rules as the Clients Reference Number data entry form. For more information on the validation rules, check *Clients Reference Number*.

## 6.2 Buy Transactions Confirmation

Using the Buy Transactions Confirmation Form, the brokers check the buy transactions that they execute took place for their clients. The brokers audit the buying client number in the transaction and check whether the transaction has been actually bought by the client and not by some other client. If the buying client number is incorrect, the broker can change it. The broker then confirms the transaction.

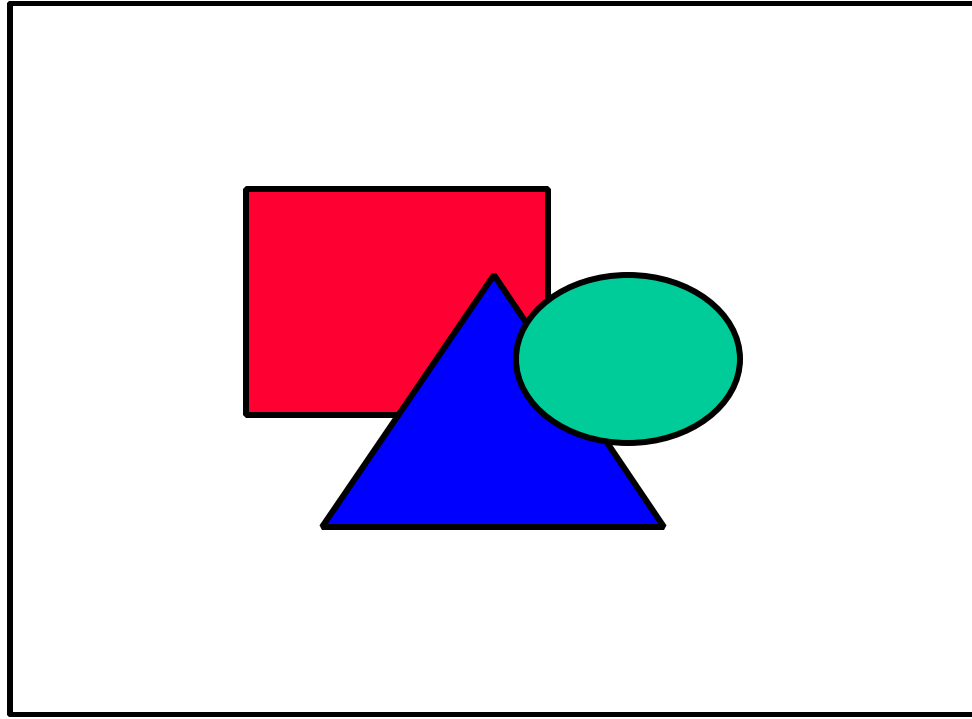


To confirm the Buy Transaction:

- Press <<Query>>: All fields will be dimmed (the fields background color will be grayed) except the Client Reference Number (this is the only field that can be edited at this point).
- Enter a valid Client Reference Number.
- Press <<Query>>: The query may return more than one record. Each record represents one buy transaction for the queried client.
- Audit the Client Reference Number.
- If the buy transaction was for another client, edit the client number accordingly.
- Press <<Confirm>>.
- Press <<Save>>.
- Use the navigation buttons to go to the next/previous sell transaction and repeat the same steps to confirm each of them.

### 6.3 Sell Transactions Confirmation

Using the Sell Transactions Confirmation Form, the brokers check the sell transactions that took place for their clients. The brokers audit the selling client number in the transaction and check whether the transaction has been actually sold to the client and not to some other client. If the selling client number is incorrect, the broker can change it. The broker then confirms the transaction.



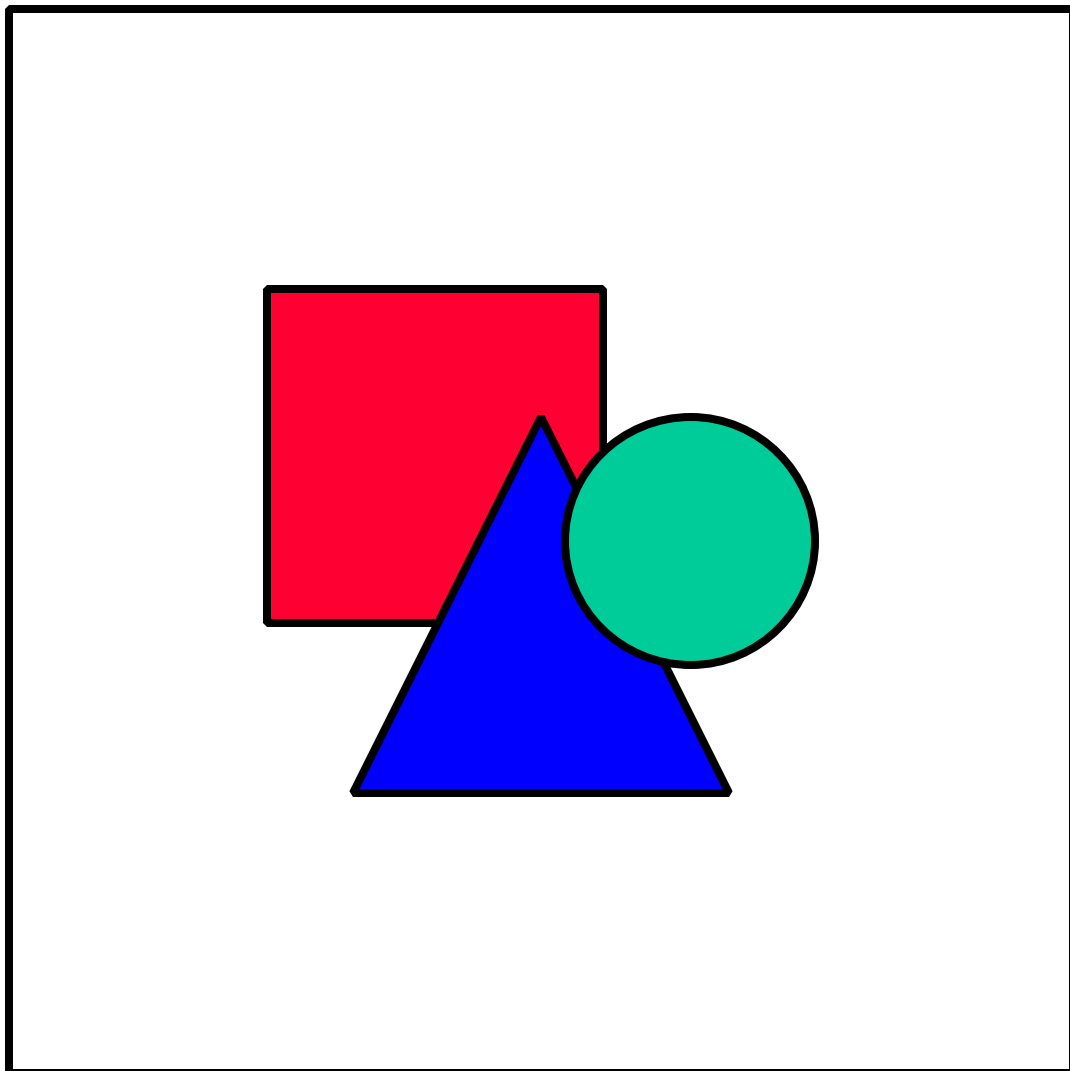
To confirm the Sell Transaction:

- Press <<Query>>: All fields will be dimmed (the fields background color will be grayed) except the Client Reference Number (this is the only field that can be edited at this point).
- Enter a valid Client Reference Number.
- Press <<Query>>: The query may return more than one record. Each record represents one sell transaction for the queried client.
- Audit the Client Reference Number.
- If the sell transaction was for another client, edit the client number accordingly.
- Press <<Confirm>>.
- Press <<Save>>.
- Use the navigation buttons to go to the next/previous sell transaction and repeat the same steps to confirm each of them.

## 7. Trade Allocation Menu

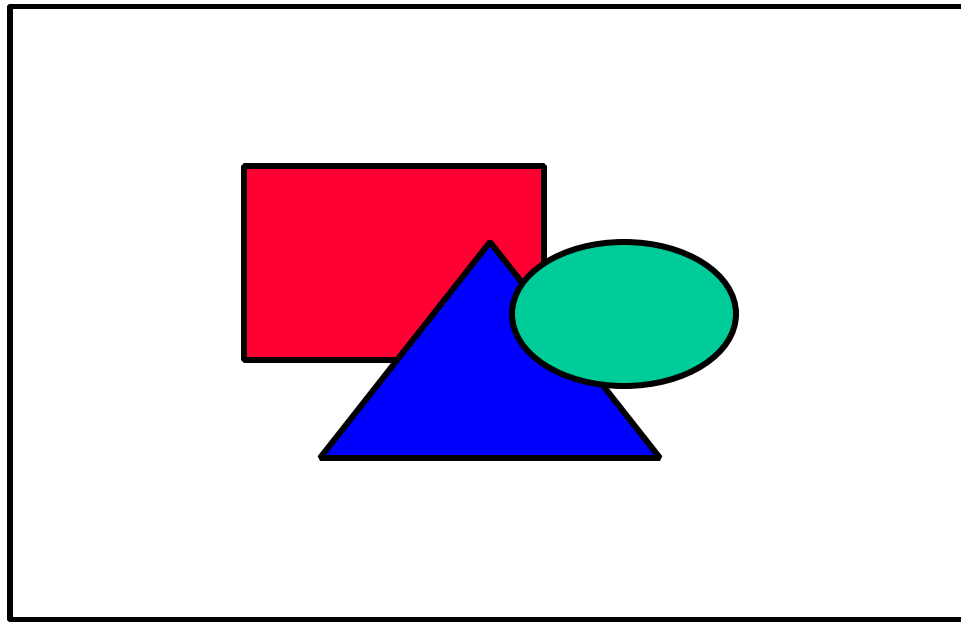
The trade allocation menu enables the users to allocate the buy and sell trades. Following are the available options:

- 7.1 Buy Trade Allocation.
- 7.2 Sell Trade Allocation.



## 7.1 Buy Trade Allocation

Buying brokers can use this form to allocate his clients' trades whom their accounts were previously defined, in the clients profile form; as restricted or non-restricted allocation account types.

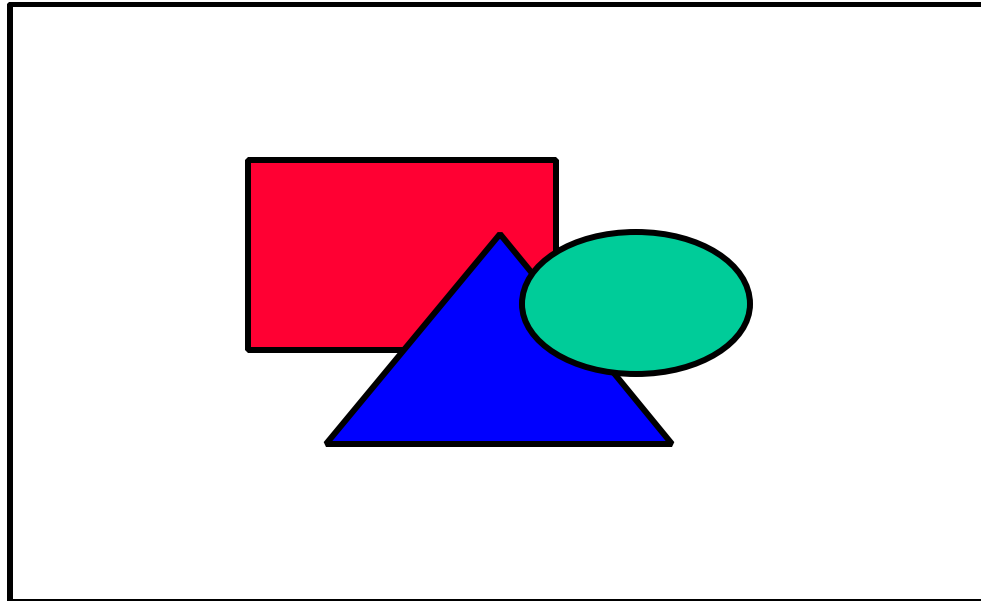


The user can navigate all the clients' trades with restricted or non-restricted allocation account type, in which he/she may allocate the trade in the lower part of the form as follows:

Field	Description
Client Reference Number	<p>A valid client reference number. The user may press F9 to get a list of all the clients to select from.</p> <p>After selecting the SDC client number, client number and name will appear on the other columns.</p> <p>In restricted allocation accounts, the user may select a sub client reference number from the list of allocated clients defined in the client allocation form. While in the non-restricted allocation accounts, the use may select any client reference number.</p> <p>The user may delete the client records by pressing Shift + F4.</p>
No. Of Shares	<p>The Number of shares owned by the allocated client.</p> <p>Note: the sum of the allocated shares must equal the number of shares in the original trade.</p>

## 7.2 Sell Trade Allocation

Selling brokers can use this form to allocate his clients' trades whom their accounts were previously defined, in the clients profile form; as restricted or non-restricted allocation account types.



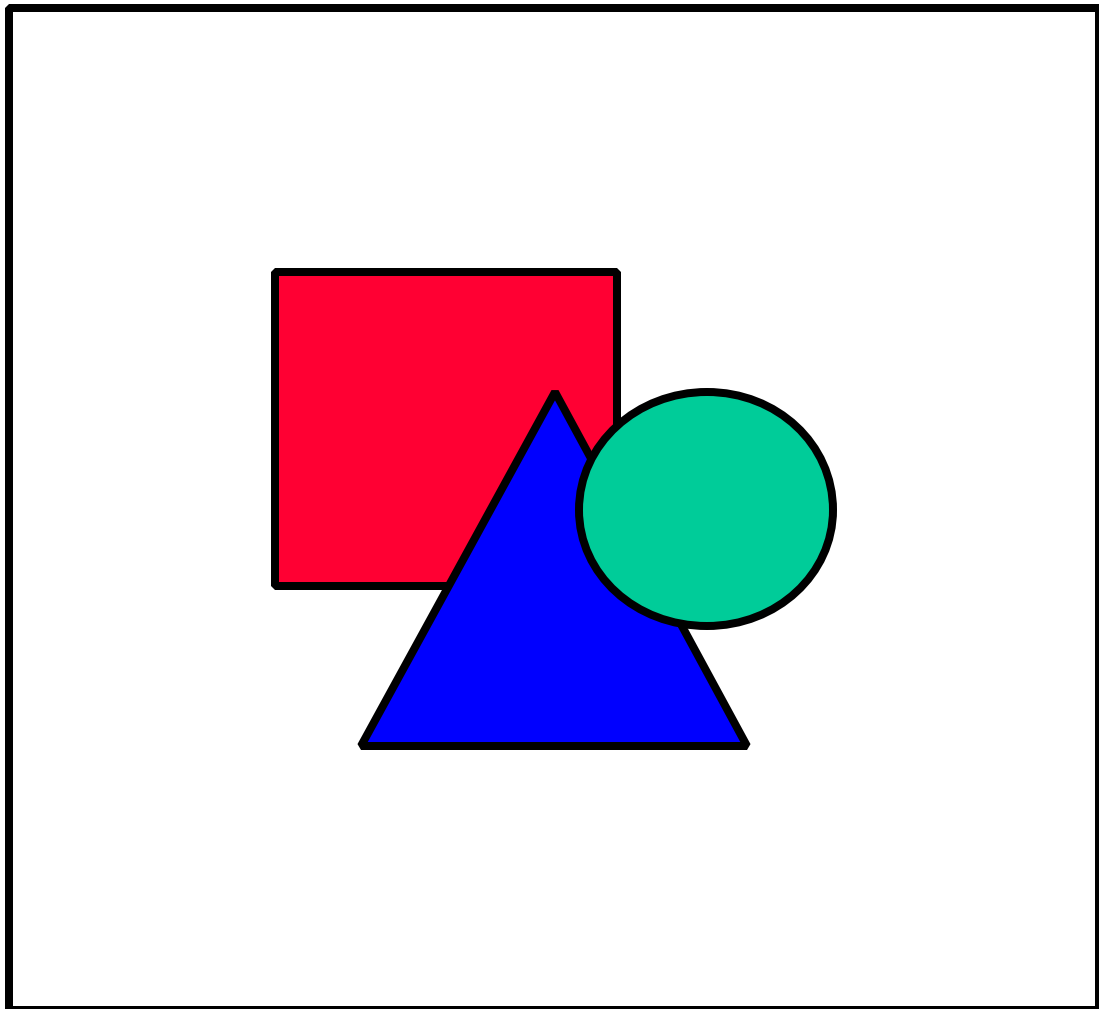
The user can navigate all the clients' trades with restricted or non-restricted allocation account type, in which he/she may allocate the trade in the lower part of the form as follows:

Field	Description
Client Reference Number	<p>A valid client reference number. The user may press F9 to get a list of all the clients to select from.</p> <p>After selecting the SDC client number, client number and name will appear on the other columns.</p> <p>In restricted allocation accounts, the uses may select a sub client reference number from the list of allocated clients defined in the client allocation form. While in the non-restricted allocation accounts, the use may select any client reference number.</p> <p>The user may delete the client records by pressing Shift + F4.</p>
No. Of Shares	<p>The Number of shares owned by the allocated client.</p> <p>Note: the sum of the allocated shares must equal the number of shares in the original trade.</p>

## 8. Queries Menu

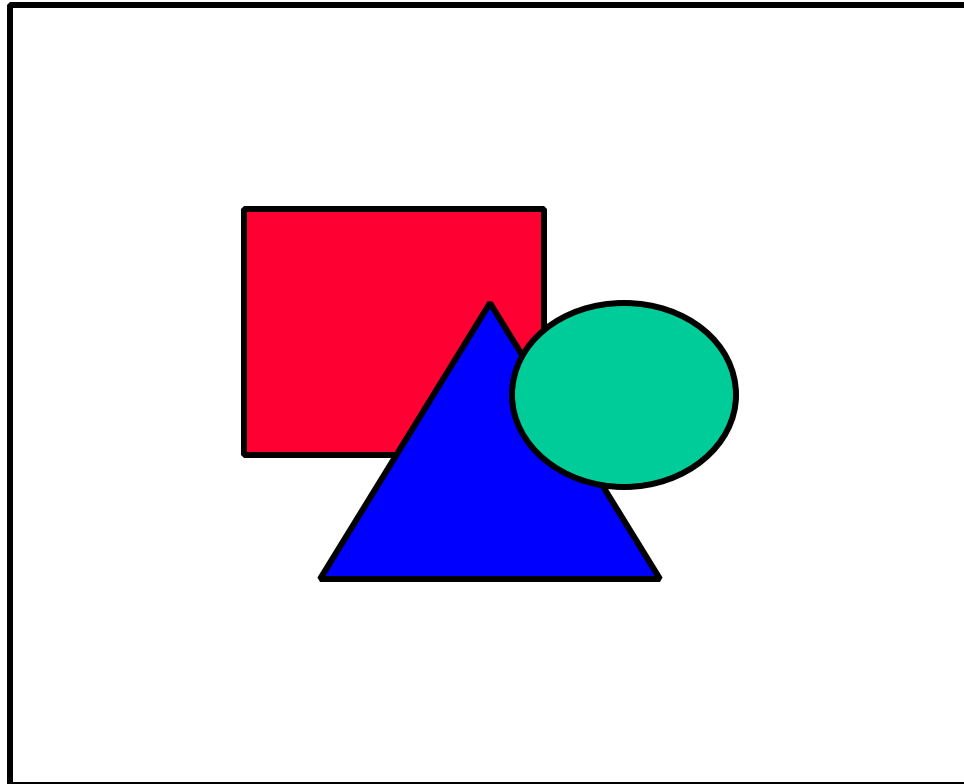
The Queries Menu supplies users with forms that allow them to query the SDC database. Following are the available options:

### 8.1 Clients inquiries



## **8.1 Clients Inquiry**

The client inquiry form enables the broker to preview all detailed information about his clients. The user can inquire by the client reference number for a certain client or he can inquire on all the clients.





## 9. Reports Menu

The Reports Menu allows brokers to generate needed reports at their SDC workstation. Following is the list of available reports:

- Clients' Entry Confirmation.
- Buy Trades List
- Sell Trades List.
- Commissions List.
- Clients' List By Name
- Clients' List By Reference Number

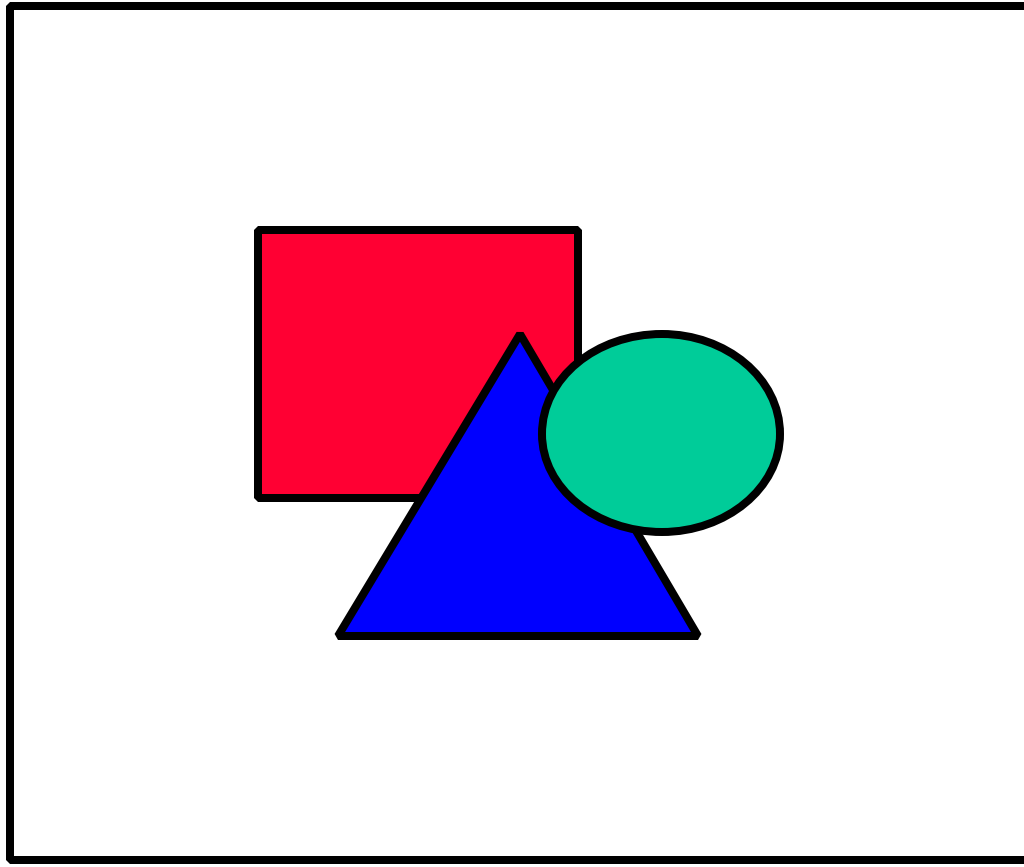
### **Note:**

The transactions available to the user for reporting are those transactions that have not been posted out of the system. Usually the transactions are posted out of the system by 10:00am next morning. However, it might happen that the transactions stay in the system for a little longer. Thus the user can select only those transactions that are still within the system.

## 10. System Administration

The System Administration Menu defines the basic information necessary to start the system. The system administrator can navigate the following data-entry forms:

### 10.1 Change Password Form



## 10.1 Change Password

A user may change his/her password at any time. Users are encouraged to change their password at least once a month.

Field	Description
User Code	A valid user code.
Old Password	The old password.
New Password	The new password the user will use to log in. While typing the password asterisks will appear instead of the actual typed-in letters. This is to keep the password confidential
Password Verification	Used to verify that the password entered is correct. Password verification must match the new password. While typing the password asterisks will appear instead of the actual typed-in letters. This is to keep the password confidential

# Securities Depository Center Database

## FIRST DRAFT

### Introduction

This document is a first draft definition of the primary database to be developed for the Securities Depository Center's (SDC) database. It is a discussion document for use by the system's developers in developing a definition of the fields needed to support a Jordanian Central Share Registry and Central Securities Depository.

All information that relates to a particular client, broker or custodian and their accounts should be maintained within the database for further use when needed for inputs and reports. Similarly, all information that relates to a particular security of an Issuer should be maintained within the issuer and securities files for further use when needed for inputs and reports. This will allow for input of only the essential elements of information that relates to the particular entry at the time of its processing.

Source documents should resemble in style and sequence, the input screen as much as practical to make the input operators jobs easier. All data that is maintained on the source documents and not input into the system should be in a bottom section of the source data.

It is essential that a proper audit trail be maintained between the data input into the system and its source document or file. Reference numbers be employed to provide this audit trail. The reference number must be unique to the specific entry and not duplicated in the system.

The highest rates of errors on input usually are related to incorrect input. Either an error is made in not canceling the entry in the exact same manner, but opposite (e.g. debit for credit), as the original entry or an additional error is made on the input of the replacement entry. To reduce this error rate, cancellation and changes of entries should use the reference number to ensure proper reversal of the original entry and to allow only the incorrect data to be replaced.

The following files must be defined: Broker (direct Participant), Custodian (indirect Participant), Issuer, Securities (issued by the Issuer) and Shareholder (client). The tables defining the database have been taken from similar systems and must be customized for the Jordanian environment. For example, text can be in both English and Arabic and names will follow Jordanian custom of four distinct names and Jordanian shareholders will be identified by their National ID number (NID).

## Participant

The Participant table must contain an entry for each participant who has a “Standard Agreement” with the SDC.

Name	Type	Size	Description
Participant ID	Text	8	KEY – Participant ID
Nickname	Text	30	This field is reserved for future use (Address Book functionality)
First Name	Text	50	Participant First Name
Middle Names	Text	50	Participant Middle Names
Last Name	Text	50	Participant Last Name
Title	Text	50	Used in the text of the Electronic Transfer Order
Company	Text	50	Used in the text of the Electronic Transfer Order
Address	Text	255	Used in the text of the Electronic Transfer Order
City	Text	50	Used in the text of the Electronic Transfer Order
State	Text	50	Used in the text of the Electronic Transfer Order
Region	Text	50	<i>Usage?</i>
Postal Code	Text	20	Used in the text of the Electronic Transfer Order
Country	Text	50	Used in the text of the Electronic Transfer Order
Work Phone	Text	30	Used in the text of the Electronic Transfer Order
Mobile Phone	Text	30	
Fax Number	Text	30	
Alternative Phone	Text	30	
Email Address	Text	50	RFC 1522 format e-mail address
Signature File	Text	255	Optionally contains name of file containing this participant’s RFC-format digital signature.
Public Key	Text	32	Contains the name of the file in the DATA subdirectory which contains this participant’s public key in PKCS7 format.
Emrgcy Contact Name	Text	50	
Emrgcy Contact Phone	Text	30	
Membership Status	Text	30	
Date Joined	Date/Time	8	
Notes	Memo	-	

## Issuers

**Issuer List** -Lists all issuers of securities at the Registry.

**Issuer Types** - shows choices of issuer entities. Used to categorize and define issuers.

Example: Corporation

**Issuer Status** - lists issuer conditions. Allows issuer's present condition to be reflected.

Example: Bankruptcy

The following input fields are required to establish an issuer:

- Organization's Name
- ID# - Issuer's unique identifying number
- 2<sup>nd</sup> ID# - Issuer's 2<sup>nd</sup> unique identifying number
- Type - the form of organization that is issuing the security, pull down field
- Status - the present condition of the organization issuing the security, pull down field
- Address - organization's address
- City/Region - part of address
- Postal Code - part of address
- Country - name of country where issuer organization is located, pull down field
- Telephone # - telephone # of issuer organization
- Facsimile # - facsimile number of the issuer organization

**Issues List** - Provides the user with a list of all issues processed at the Registry.

The input items on Issues are detailed as follows:

- Trading symbol - same as symbol, the unique alphabetical abbreviation for each issue.
- Issue ISIN - International Security Identification Number, type in the number that gives each Jordanian (or other) security its own unique global identity
- Type - pull down field for the security form that the issue will take
- Issued by - Issuer's organizational ID#. This allows the system to automatically insert in the unlabeled field below the name, address and telephone # of the issuing organization
- Status - pull down field to insert the present condition of the security

## Definitions:

Issue Types - lists forms security issues can take. Identifies what security form the user is working with. Example: Common Stock.

Issue Statuses - shows issue conditions. Identifies the state a security is in. Example: Publicly Traded.

Issuance Types - lists categories of security issuance. Under what situation was a security issued. Example: IPO.

The Issuer table must contain an entry for each issuer who is named in a “Standard Agreement”.

Name	Type	Size	Description
Issuer ID	Text	8	KEY – Issuer ID as it appears in the Agreement table
Nickname	Text	30	This field is reserved for future use (Address Book functionality)
First Name	Text	80	Registrar Name
Company	Text	50	Used in the text of the Electronic Transfer Order
Address	Text	255	Used in the text of the Electronic Transfer Order
City	Text	50	Used in the text of the Electronic Transfer Order
State	Text	50	Used in the text of the Electronic Transfer Order
Region	Text	50	<i>Usage?</i>
Postal Code	Text	20	Used in the text of the Electronic Transfer Order
Country	Text	50	Used in the text of the Electronic Transfer Order
Work Phone	Text	30	
Mobile Phone	Text	30	<i>Presently not used.</i>
Fax Number	Text	30	
Alternative Phone	Text	30	
Email Address	Text	50	RFC 1522 format e-mail address
Signature File	Text	255	Optionally contains name of file containing this registrar’s RFC-format digital signature.
Public Key	Text	32	Contains the name of the file in the DATA subdirectory which contains this registrar’s public key in PKCS7 format.
Emrgcy Contact Name	Text	50	
Emrgcy Contact Phone	Text	30	
Membership Status	Text	30	
Date Joined	Date/Time	8	
Notes	Memo	-	

## Shareholders

This file provides detailed information about what securities customers own, share activity that has occurred in each account by security and who the shareholders are within each issue.

## Registrant Options

Registrant Types - indicates what form the registration takes. Determines whether the registration is an person or entity. Example: Individual

Individual Types - lists characteristics of individual registrations. To identify account holders situation. Example: Minor

Individual Status - present condition of an individual. Provides information on an individual's capacity. Example: Deceased

Organization Types - reflects different organization classifications . Identifies the form of organization for account purposes. Example: Corporation

Organization Status - reflects the condition of an organization. Provides information on an organization's capacity. Example: Closed

## Registry Account Options

Account Types - lists account designation choices. To identify different possible customer accounts. Example: Single

Account Status - shows various account conditions. Provides account conditions to be attributed to each account. Example: Restricted

Registrants screen

**The registrant process is a critical link to the establishment of an account and must occur prior to the account set up in the ISR.** In the Registrant sub menus the user must choose either an Individual or Organization registration.

The input items on the Registrant Individual Detail are as follows:

- Gender - registrant's gender or marital status from the pull down field.
- Last Middle and First Names - individual's names in the fill in fields.
- ID# - Type in the individual's unique identification number
- 2<sup>nd</sup> ID# - Type in the individual's 2<sup>nd</sup> unique identification number
- Type - the characteristic of the individual
- Status - the present condition of the individual



- Address - street address of the individual
- City/ Region - Part of address
- Postal Code - Part of address
- Country - the country where the individual resides
- Telephone# - individual's telephone number
- Facsimile# - individual's facsimile number.

Other

**The other choices may not have system required secondary information associated with them. These are for possible use by the member brokers and may not become part of the system.**

- "Salesman number" is used to identify the licensed salesperson that is responsible for the account.
- "Active or not" is used to control input into accounts. Input can only go into active accounts. Not active account codes must be retained by the system for historical data requirements and to insure that the account code is not given to another account, where the data from the old account would be mixed with the new account data.
- "Client or not" is used to identify accounts that are and are not associated with the Broker/Custodian. Most markets require that preference be given to client account orders at the same price even though the client's order might have been received later but before the trade execution.
- "Name" is the accounts name to be used in confirmations etc.
- "Short name" is the short name to be on internal reports.
- "Address" is the address used for communicating with the account.
- "Region" is the area where the account resides.
- "Nationality" is the nationality of the account.
- "Nominee" is the name that the account wishes to use when providing information to the issuer and other non-regulatory groups. The accounts actual name must always be available to the Regulatory Agencies.
- "Copy 1" is the address where the first copy of confirmations and statements are sent.
- "Copy 2" is the address where the second copy of confirmations and statements are sent.
- "Remarks" is a free form section for any comments desired to be associated with the account"

- “Codes” are free form code fields to be defined by the user to accommodate all the Regulatory and Statistical requirements. For example, codes required for the Chart of accounts could easily be handled within these codes. Information such as:
  - Resident or non-resident;
  - Natural or legal person;
  - Client, Custodian, Trader or Issuer account;
  - Discretionary or non-discretionary;
  - Deceased;
  - In liquidation;
  - Restricted by legal order;
  - In trust;
  - Repo agreement account;
  - Pending cancellation; and
  - Region of domicile.

**AMIR Program**

# Memo

**To:** Samir Jaradat

**From:** Bill Gorman

**CC:** Mohammad Amoudi, Maan Jalamdeh, Khush Choksy, George McCord (via e-mail)

**Date:** January 30, 2000

**Re:** Client Data and the Electronic Trading System

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SDC and its participants need a mechanism for positively matching customer orders to executed trades. This matching of orders should be as automated as possible.

Each order entered in ASE's Electronic Trading System (ETS) has a field known as Client Reference. Use of this field should be mandatory. The executing broker would use it to identify his client. SDC would use it for surveillance purposes. This information should be included in every trade file (both executed and cancelled trade reports) sent to the broker. It should also be included in the trade reports sent to SDC for settlement.

At the end of each trading day, ETS creates several archival files of orders and trades in text format. These include executed trades, cancelled trades and trades left in the order book. These files will be used to report trades to the submitting brokers and to the SDC. These files do not however, contain the Client Reference field.

The following changes should be made to the trading system:

- Every trade report sent to the SDC should include the Client Reference number for both the buy side and sell side of each trade.
- The Client Reference Number should be included in the reports (whether paper or electronic) sent to brokers that identify their executed and cancelled trades.

Best regards,

## Depository systems available from USAID

AMIR has a suite of programs, owned by USAID, that supports the depository function. We will be custom tailoring these programs to suit the unique requirements of the Securities Depository Center and the Jordanian Capital Markets. This suite of programs can be readily integrated with an automated trading system. The following is a comparison of these systems

### Moldova

The CSD carries out three major functions (clearing, settlement, and depository) to settle trades, both on the securities delivery and the cash payment side. It has a complete set of rules to support it. In the Moldova system, trading is integrated with clearing and settlement. It is a call market trading system (automated order match) with beneficial owners designated in the order based upon holdings in the depository. Since the Amman Stock Exchange will be using ETS for trading, the trading portion of the Moldova system would need to be de-linked. The most significant difference would be that the ASE would not perform the Order Validation (verification of ownership) provided by the system.

The system assumes a dematerialized environment. Dematerialization and rematerialization processes must therefore be added. It settles trades on a sub-register. It does not have any corporate action capabilities. These would be performed by the Registry system.

At the end of each trading day, all matched trades from the Trading System are given to the Clearing function for recording within its records and subsequent reporting to the brokers named as either the buyer or the seller. In addition to recording the buyer and the seller the trade record is examined to see if the investor will be settling his obligation with his broker directly or through the services of a Custodian functioning as a Settlement Agent for the investor. Should the latter be the case, the Settlement Agent will receive a record of the trade and in addition be asked by the system to confirm their willingness to perform the settlement function for their client investor.

Matched trades cannot have the trade data changed except by having the original trade canceled. Changes can be made to the settlement instructions of a trade that has a Custodian acting as the Settlement Agent for its client investor. These latter changes would in no way change the trade detail of the original trade as executed on the MSE.

Trade settlement is the exchange of securities for money. Settlement is accomplished when the depository registers the transfer of ownership of securities from the buyers to the sellers, and receives the money from the buyers and pays it to the sellers. Ownership is never given up without the receipt of the agreed upon funds as stated in the trade record. Ownership is transferred to all buyers whose depository participant has made the payment of the agreed upon funds as stated in the trade record. Should the participant not be able to meet his settlement obligation, the depository will execute a Buy-in in the case of a default in the share delivery process or a Sell-out in the case of non-payment of required funds.

The Money side of the stock exchange trades is settled through the settlement bank. The stock delivery side is settled by transferring the securities from one depository account to another one. Except for the trades that assume the participation of the settlement agents the CSD will not deal with money settlement between the brokers and their clients (individual investors).

The primary function of the depository is to keep ownership records of all security holdings registered in the nominee name of the CSD. There are three basic ways to record the ownership of these security holdings in the CSD.

1. *Individual Investor Accounts*--Individual investors can maintain their securities holdings by way of positions in their depository account. The investor through the services of a CSD participant can open an Individual Investor Account.
2. *Omnibus Account*--There are two types of Omnibus Accounts in the CSD. The first is the Broker's Omnibus Account and the second is the Omnibus Account administered by a Settlement Agent.
3. *Broker House Account*--The brokerage house will maintain its holdings in this account. For all practical purposes it functions much the same as an Individual Investor Account.

The following lists the basic depository functions provided by the system:

- *Opening/Maintaining an Account*
- *Process Security Deposits*
- *Process Security Withdrawals*
- *Inter-Account Transfer*-- one depository participant to another
- *Intra-Account Transfer*
- *Suspending Accounts*
- *Blocking of Security Holdings*
- *Depositors Statements*
- *Processing of Corporate Actions* – via the Registrar

### **Romania**

The Romanian Depository, Clearance and Settlement system is (DCS) carries out three major functions (clearing, settlement, and depository) to settle trades, both on the securities delivery and the cash payment side. Recording of the beneficial ownership is optional and it is based more upon the American model of custodian-brokers. It is trade for trade, no netting, no settlement guarantee. Settlement is separate from recording changes in beneficial ownership. It assumes a dematerialized environment. Dematerialization and rematerialization must therefore be added. It settles trades on a sub-register and has links to an Independent Share Registry System (ISR – part of the USAID suite of programs) or multiple Registry systems. No trading system is included. Corporate actions are handled by the Registry system.

DCS has the following capabilities:

- Permits users to perform ownership transfers “from street name”, “sub-account” and “account transfers”.
- Maintains current and historical data of securities ownership transfers.
- Enables viewing and printing of account position statements in detail or summary for any selected period.
- Enables execution of Clearing and Settlement functions in batch or on-line mode.
- Provides on-line viewing of Clearance and Settlement functions such as closing price, funds adjustments.
- Facilitates printing of Clearance and Settlement reports.
- Provides on-line information on daily trades and funds adjustments.

The DCS Main Menu offers fifteen key functions:

***Account Positions Information*** - Enables users to inquire about positions by account or symbol, position breakdown and history, record date holders and account statements.

***Depository Transfers*** - Enables users to view detail information on transfers and enter new transfer requests.

***Funds Adjustments*** - Enables users to view and enter adjustments for participant's for penalties, late charges etc. Only DCS personnel make funds adjustments.

***Clearing Settlement*** - Enables users to view and execute requests related to clearing and settlement. Batch controls and reports, securities settlement, funds settlement and closing market prices are available from this function.

***Trade Inquiry*** - Enables users to view trades waiting for settlement.

***Registrars*** – Provides users detailed information on registrars and contacts and allow entry of new information.

***Issues*** - Enables the users to view detail account information by symbol, position breakdown, account position history, and enter new issue information.

***DCS Accounts*** - Enables users to view detail information on accounts, sub-accounts and positions in the accounts.

***Clearing Banks*** - Enables users to view detail information on banks including contact data and enter new banks to the DCS System.

***Options*** - Enables users to view detail information on all the DCS options.

**Registry Reconciliation** - Enables users to view out-of-balance positions with registries and import the latest positions reported to update the reconciliation process.

**Issuers** - Enables users to view detail information on issuers including issues by issuer, registrar for issuers, contact information and enter new issuers to the DCS System.

**Remote Users** - Enables users to view detail information on remote users including all user log-on id's by individual and organization and enter new remote users to the DCS System.

**Participants** -. Enables users to view detail information on participants including account and sub-account positions and enter new remote users to the DCS System.

**Billing** - Enables the users to request either detail or summary billing report request.

## **Ukraine**

The All Ukraine Clearing and Depository (AUCD) system requires the beneficial owner to be identified as part of the locked in trade information received from the trading system. It has an Electronic Trade Confirmation (ETC) facility that provides Delivery versus Payment (DVP) settlement between brokers and their institutional clients. It supports dematerialization and rematerialization. Corporate actions such as cash dividend, splits and stock dividends are included. It has central registry and sub-registry functions. No trading system is included.

The system has SWIFT-like messages. It can utilize terminal for interface or do a host to host based upon SWIFT records being picked up or delivered to the terminal. The system is in pilot mode in the Ukraine. It supports contractual settlement with netting and/or trade for trade. It supports Settlement Caps and a Guarantee Fund. The depository is the registrar for dematerialized securities. Beneficial Owner information is passed on to the Custodians. In the Ukraine, the custodians are the only legal keepers of BO data. The system does not open accounts for BOs.

Settlement is book-based (i.e., ownership is transferred within the records of the depository). Book-based settlement is directly against an omnibus depository sub-account maintained and managed by a custodian or a proprietary sub-account specifically opened to contain the custodian's own security portfolio. Book-based settlement is also directly against an omnibus or proprietary depository sub-account maintained by the custodian but managed by a broker with whom the custodian has a contractual relationship to clear and settle all trades executed by the broker against the omnibus sub-account. All funds and securities are netted at the custodian level. The securities netting process is multi-lateral.

Investors hold positions in the AUCD by opening an account with a Custodian who is a participant in the AUCD. Sub-accounting for positions in the custodian omnibus accounts

is carried out in the internal accounting systems of the custodian. The Depository System supports the functions of account management (opening depository accounts and sub-accounts, closing depository accounts and sub-accounts, depository account and sub-account maintenance), deposits, transfers, withdrawals and corporate actions (cash dividends, stock splits, etc.)

AUCD maintains five types of accounts:

1. Custodian account – consisting of two sub-accounts, proprietary and omnibus. The proprietary sub-account reflects the personal holdings of the custodian and the omnibus account reflects the co-mingled holdings of the clients of the custodian (for securities). Additional proprietary and omnibus sub-accounts may be opened for each broker who has signed an agreement with the custodian to settle the trades of the broker.
2. Custodian clearing accounts (for money and securities)
3. Issuer proprietary accounts (shares)
4. AUCD Buy In accounts (money and securities).
5. AUCD Sell Out accounts (money and securities).

Custodian omnibus accounts represent the aggregate security holdings for the custodian's clients. Security positions of the custodian's clients are co-mingled in the omnibus account. The individual security positions that make up the omnibus account are maintained in the custodian's internal accounting system and are not known to the AUCD.

Clearing accounts are maintained for each custodian account. A custodian may have one depository account. He has one clearing account to support his depository account. Clearing accounts are used for settling money and securities. Clearing accounts represent the "other side" of the accounting transactions generated by the system during the settlement cycle.

Issuers do not have Clearing accounts because they are not engaged in trading.

In case there is a need to compile a registry of registered securities, the registrar, with whom the AUCD is registered as a nominal holder, sends to the AUCD a written order/instruction to compile a consolidated register. A register is compiled on the basis of sub-registers submitted by custodians. The total number of a security recorded with the registrar on the account of the AUCD as a nominal holder should equal the aggregate number of the security on the securities accounts of the custodians-participants which have transferred them to the nominal holder.

The Settlement Guarantee applies only to those share and money settlement obligations that have been accepted into the contractual settlement process and are a result of the multi-lateral netting of trades.



# Jordanian Central Securities Depository and Registry System Based on USAID provided software A Concept Paper by Bill Gorman

September 18, 1999

## Introduction

The overall business objectives of the Securities Depository Company (SDC) for the Jordanian Capital Market are:

1. To simplify the process of transferring ownership of securities;
2. To increase public confidence in the securities market;
3. To raise the Jordanian securities market to the standards of international capital markets;
4. To increase the liquidity of the marketplace.

In order to achieve these goals, the SDC will implement systems to automate the clearance and settlement of the trades executed on the Amman Stock Exchange (ASE) and Registration of Jordanian securities. USAID has a suite of programs to support the SDC function and will custom tailor these programs to suit the unique requirements of the ASE and the Jordanian Capital Markets. This suite of programs will be linked to ASE's automated trading system independent of which system ASE implements.

We are proposing to modify, to meet Jordanian requirements, the Depository, Clearance and Settlement (DCS) computerised transaction and inquiry system currently in use in Romania. The DCS system offers logical workflows for data retrieval, data input, and transaction processing. There are also many safety features incorporated into the DCS system to protect processed data and ensure accurate and complete input of information.

This concept paper is designed to provide the SDC, the ASE and the Jordan Securities Commission (JSC) with an explanation of how the essential business functions and operations of the SDC is addressed by the USAID provided systems. It lists only the more important functions. A full explanation can be found in the DCS User Manual.

## *Depository Functions*

The Depository, Clearance and Settlement system:

- Permits users to perform ownership transfers "from street name", "sub-account" and "account transfers".
- Maintains the current and historical data of the securities ownership transfers.
- Allows viewing and printing of the account position statements in detail or summary for any selected period.
- Allows execution of the Clearing and Settlement functions in batch or on-line mode.

- Provides viewing of the Clearance and Settlement functions on-line such as closing price, funds adjustments.
- Facilitates printing of the reports.
- Provides on-line information on daily trades and funds adjustments.

### ***DCS's Role in the Depository:***

The DCS system enables the user to perform the functions noted above in an efficient and effective manner. Required information is entered into pre-formatted entry fields. Current and historical data is captured in the DCS database for easy inquiry.

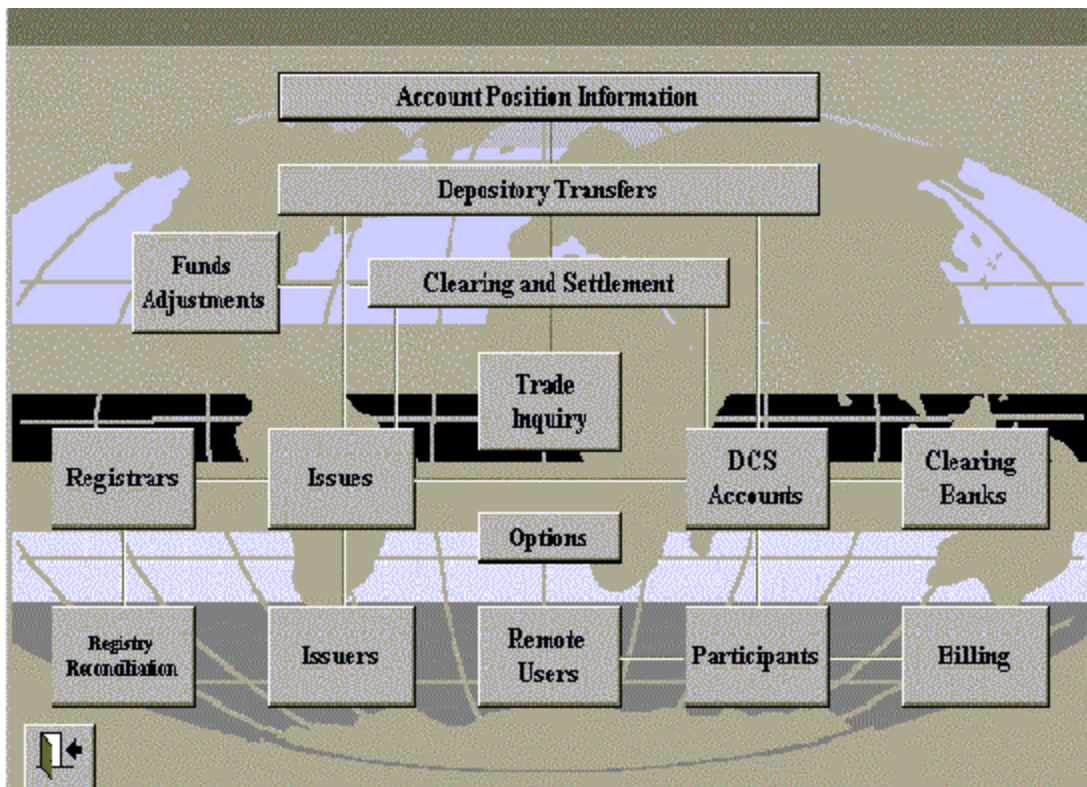
Screens are accessible and printable, and the report options have been designed to meet users needs. The DCS system has data protection and data access security features incorporated.

### ***DCS Software and Hardware Required:***

Users of DCS can access the system using Pentium PC's with 32 MB RAM, Windows 95 operating system, DCS software, printer etc.

## **Operating DCS**

The DCS Main Menu lists the basic functions provided.



The DCS Main Menu consists of the menu bar, toolbar and 15 icons representing the DCS database and an Exit icon. The DCS icons are:

***Account Positions Information*** - Allows users to inquire on positions by account or symbol, position breakdown and history, record date holders and account statements.

***Depository Transfers*** - Allows users to view detail information on transfers and enter new transfer requests.

***Funds Adjustments*** - Allows users to view and enter adjustments of participant's penalties, late charges etc. Only JSC personnel may make funds adjustments.

***Clearing Settlement*** - Allows users to view and execute requests related to clearing and settlement. Batch controls and reports, securities settlement, funds settlement and closing market prices are available from this function.

***Trade Inquiry*** - Allows users to view their trades.

***Registrars*** - Allows users to view detail information on registrars and contacts and allow JSC personnel to enter new information.

***Issues*** - Allows users to view detail account information by symbol, position breakdown, account position history, and enter new issue information.

***DCS Accounts*** - Allows users to view detail information on their accounts, sub-accounts and positions in their accounts.

***Clearing Banks*** - Allows users to view detail information on banks including contact data and enter new banks to the DCS System.

***Options*** - Allows users to view detail information on all the DCS options.

***Registry Reconciliation*** - Allows users to view out-of-balance positions with registries and import the latest positions reported to update the reconciliation process.

***Issuers*** - Allows users to view detail information on issuers including issues by issuer, registrar for issuers, contact information and enter new issuers to the DCS System.

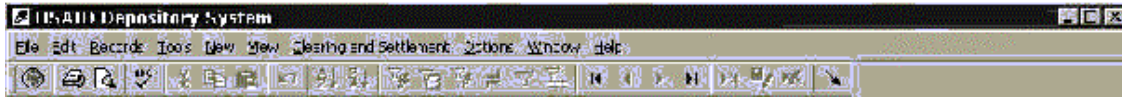
***Remote Users*** - Allows users to view detail information on remote users including all user log-on id's by individual and organisation and enter new remote users to the DCS System.

***Participants*** - Allows JSC users to view detail information on participants including account and sub-account positions and enter new remote users to the DCS System.

***Billing*** - Allows users to request either detail or summary billing report request.

***Exit DCS*** - Allows users to exit the DCS system.

### *Using Pull Down Menus*



To select a sub-options from one of the main options, click on the main option you want to select. The sub-options will be displayed in a pull down menu. Select the sub-option you want to execute by clicking on the option.

### *Locating Information within the DCS System*

Use the toolbar options SORT and FILTER to locate or find information within the DCS System.



## **DCS System Options:**

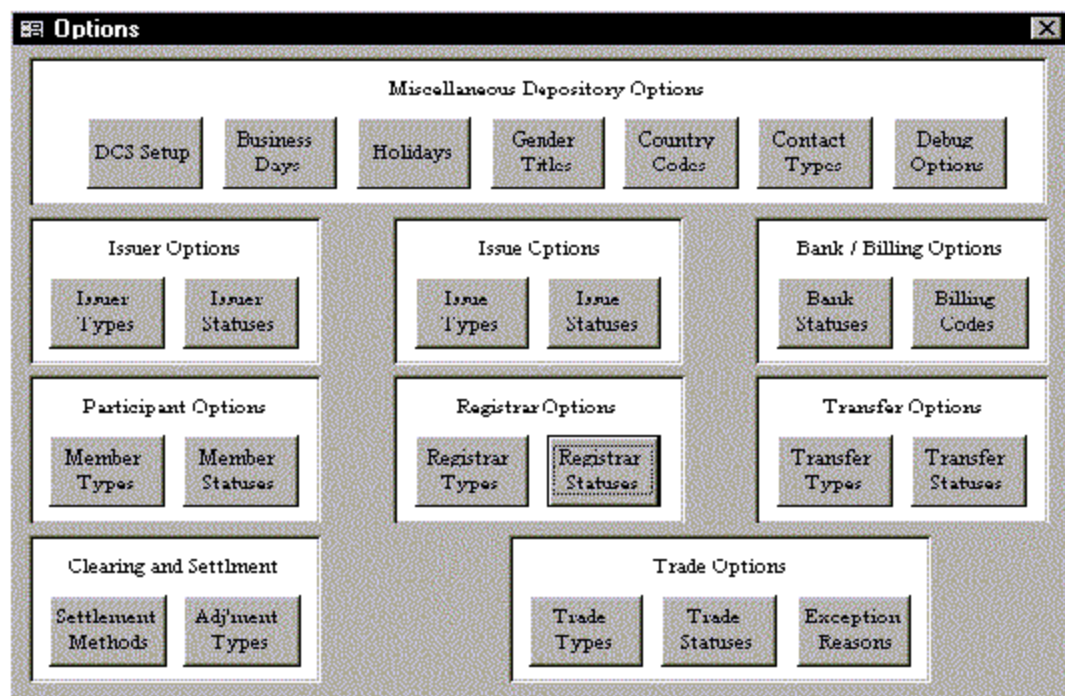
### **What are DCS Options?**

DCS options allow users to customise certain categories, such as type or status of an item, to meet their specific needs. This flexibility eliminates the need for system modifications whenever a new category needs to be added.

### **Who Uses DCS Options?**

The DCS supervisor or manager is responsible for maintaining the options. **Some options are system generated and cannot be changed.**

**From the DCS Main Menu click the Options icon. DCS displays the Options screen.**



These options are grouped in nine major categories. They are:

Miscellaneous Depository	Issuer
Issue	Bank/Billing
Participant	Registrar
Transfer	Clearing & Settlement
Trade	

### Miscellaneous Depository Options

- DCS Set-up** Contains Depository organisation information such as address, telephone numbers as well as type of settlement and the cut-off time for the settlement. Only one Depository organisation per system can be defined.
- Business Days** Allows the users to select the normal business days the SDC open for business.
- Holidays** Allows the users to enter data and description about the holidays.
- Gender Titles** Allows the users to assign gender prefixes to identify customers.  
Example: 1 = Mr. or 2 = Mrs.
- Country Codes** Allows the users to assign country codes to be used by the system.  
Example: JO - Jordan
- Contact Types** Allows the users to assign type codes to different contacts within a corporation.  
Example: Accounts Payable
- Debug Options** Used by System Administrator.

**Issuer Options**

<i>Issuer Types</i>	Allows the users to assign type codes to categorise Issuers. Example: Corporation
<i>Issuer Statuses</i>	Allows the users to assign status codes to identify issuer's condition. Example: 1 = Normal

**Issue Options**

<i>Issue Types</i>	Allows the users to assign type codes to securities. Example: 1 = Common Stock
<i>Issue Statuses</i>	Allows the users to assign status codes to securities. Example: 1 = Restricted

**Bank/Billing**

<i>Bank Statuses</i>	Allows the users to assign status codes to the settlement bank. Example: 3 = Closed
<i>Billing Codes</i>	Allows the users to assign event id codes to the billing description which is chargeable to the customer. Example: 3 = Trades-Cleared

**Participant Options**

<i>Member Types</i>	Allows the users to assign type codes to the participants. Example: 4 = Nominee
<i>Member Status</i>	Allows the users to assign status codes to the participants. Example: 3 = Active

**Registrar Options**

<i>Registrar Types</i>	Allows the users to assign type codes to the registrar. Example: 2 = Issuer Managed
<i>Registrar Statuses</i>	Allows the users to assign status codes to the registrars. Example: 1 = Open

**Transfer Options**

<i>Transfer Types -</i>	Allows the users to assign type codes to the transfer action. Example: 4 = To Street Name
<i>Transfer Status -</i>	Allows the users to assign status codes to the transfer action. Example: 4 = Registry Rejected

## Clearing and Settlement Options

*Settlement Method Codes:* Allows users to specify settlement type.  
Example: 1= Trade-for-Trade Settlement (TFT)

*Adjustment Types* Allows the users to assign funds adjustment type codes.  
Example: Penalty for Open Fail

## Trade Options

*Trade Types* Allows the users to assign type codes to the unsettled trades.  
Example: 1 = Market

*Trade Statuses* Allows the users to assign status codes to the unsettled trades.  
Example: 1 = Confirmed

*Exception Reasons* Allows the users to assign reason codes to the trade exceptions.  
Example: 1014 = Duplicate Trade ID

## Registrar:

This option allows the users to maintain Registry information in the Depository system. It is possible to use a single central Registrar or to interface with multiple Registries from the SDC. When a transfer from the Depository to the Registry is made, the system will use the Registry ID # to transfer information to the appropriate registry.

Clicking on the Registrar icon on the main DCS menu can access registrar information. System will display a list of all Registries.

This screen has three options:

**View Detail:** Provides detail information about the Registry

**New:** To add new Registry data, click on this button

**Contacts:** Use this button to view or add contact information about the Registry

**View detail provides Registrar Detail information:**

<b>Name:</b>	Name of the Registry
<b>ID#:</b>	Fiscal Code of Company
<b>Type:</b>	Type of the Registry
<b>2<sup>nd</sup> ID:</b>	CNVM ID Registry Identification Number
<b>Status:</b>	Open or Closed
<b>Address:</b>	Address where the Registry is located
<b>City/Region:</b>	City and Region where the Registry is located
<b>Postal Code :</b>	Postal Code for the Registry
<b>Telephone#:</b>	Telephone # of the Registry
<b>Country:</b>	Country name where the Registry is located
<b>Facsimile#:</b>	Fax# for the Registry

**Issuers:**

The option on the DCS main menu allows adding and viewing of the Issuing companies. Click on the option to list the current Issuers.

<b>Name:</b>	Name of the Issuer
<b>ID#:</b>	Issuer's ID #, represents the Fiscal Code
<b>Type:</b>	Type of company
<b>Phone#:</b>	Issuer's phone number
<b>Status:</b>	Company Status

**Issues**

The Issues option on the main DCS menu allows the users to view and add information about the securities. Issues must exist in the DCS system and must contain valid a 'Symbol' and an 'Issue ID' number. List of all securities in the DCS system can be obtained by clicking on the Issues icon.

**Participants:**

The Participant List screen provides the user with a list of all participants (broker/dealers & banks) at the Depository. To list all current Direct Users of the Depository system, click on the Participant icon of the DCS main menu.

**DCS Accounts:** To list or add clearing accounts for the direct user, click on the DCS accounts.

To enter a direct user's participant account number access the blank fields at the bottom of this screen. Input the following information: Bank account number, Clearing Bank (from pull down), free form description and Click on (auto number) to assign the next sequential account number.



## Depository Transfers

To view all Depository Transfers; select the Depository Transfer icon from the DCS main menu.

A list of all transfers executed by the DCS System will be displayed.

### Depository Transfer Detail Fields:

*Transfer Type* Identifies the five different types of transfers in the DCS system, of which, the first three are available to the Depository. The system will prompt for information related to the selected type. For example, if the credit account number is entered, the system will provide account information. A sample sub-account screen follows.

*Sub-account:* Transfer from one sub-account to another within the main account.

*Free/Portfolio:* Transfer from one direct user's account to another.

*From Street Name:* Transfer from direct user's account at Depository into the shareholders account at the Registry

The other two transfer types not allowed in the Depository system are;

*to Street Name:* Indicates transfer from Registry to Depository

*Settlement:* Indicates transfer of securities as a result of Trade-for-Trade movement. System will update this information when the transfer occurs in batch.

## Clearing & Settlement:

The Clearing & Settlement option provides the following functions: Batch Controls and Reports, Securities Settlements, Funds Settlements and Closing Market Prices.

### Projected Settlement

This option reflects projected (prior to settlement date) net securities settlement data: Date, Account, Symbol, Shares to Settle, Funds to Settle and Settle Method. The information will also be on batch reports. This screen allows the user direct access to the Funds Settlement information.

**Trade Inquiry List:**

The purpose of this option is to facilitate on-line viewing of all trades. This option will be used mainly for research and inquiry purposes and to resolve conflicts in order to settle the unsettled trades.

**Funds Adjustments:**

This option allows the users to view any adjustments to the settlement funds. These adjustments are made by the Depository and typically include miscellaneous adjustments such as Depository fees, prepayment, penalties or any other adjustments. These adjustments are also reported on the 'Settlement Projection Report' after the settlement cycle.

**Interfaces:****Types of interfaces;**

The Depository, Clearance & Settlement system directly interfaces with Independent Shareholder Registry (RISR), Remote Depository (RDCS) and OTC systems. The interface to Remote Registry is through the main Registry (RISR) system.

**Trading Systems:**

When the trade import file containing today's trades and corrections are received, the DCS system is updated with the trade data. Any rejections are sent back to Trading System for corrections.

**From Depository (DCS) to Registry (ISR)**

Transfer types of "from street name" from the main Depository (DCS) directly and Remote Depository (RDCS) (via the main Depository (DCS)) go to the Registry (ISR). If rejected by the Registry (ISR), the transfers are sent back. If completed, the Reconciliation module in the main Depository (DCS) system is updated.

**From main Registry**

From the main Registry (ISR) directly and the Remote Registry indirectly (RISR), all "to street name" transfers go to the main Depository (DCS) system. If rejected, they come back to Registry. If completed, the Reconciliation module in the Registry is updated.

**Out-of-balance Depository positions:**

The reconciliation process is designed to provide users up-to-date information on Depository positions of security at all time by comparing the Registry system transfer activity to the Depository transfer activity. **If both sides are in agreement, the security will not be displayed on the reconciliation screen.** Otherwise, the system will display Registry counts vs. Depository counts for the security on the Reconciliation screen.

When transfers are made from the Depository to the Registry, the system updates counts for the DCS Position immediately. The automatic update of the Registry (ISR) position is scheduled for every morning. Manual updates can be executed any time during the day by clicking on the import button of the reconciliation screen.

### **Remote Access**

The Remote Access feature of the Depository, Clearance and Settlement system provides the user the ability to set up 'system and security access' for brokers, dealers and banks who will be allowed to use the Remote Depository Clearance and Settlement system. The set ups done through this screen will be used to verify User ID and password for remote access and to confirm that the user is authorised to access this account during the transfer of the securities.

For remote access;

- The user firm must be set-up as organisation in the DCS system.
- Organisation must be linked to one or more accounts.
- All users within the organisation must be set-up as valid users of the system.
- All the remote users must be linked to "only one account"

### ***DCS REPORTS:***

The Depository Clearing & Settlement system generates;

- manual as well as batch reports.
- manual reports provide the user the flexibility of selecting report period and in many cases account numbers.
- some reports, such as, Billing reports are interactive reports which the system updates information immediately. The settlement reports depend on the settlement cycles.
- all of the manual reports can be previewed by the user on-line before printing them.

The following reports are produced sub-option 'Batch Controls & Reports' under main option 'Clearing & Settlement' on the 'DCS main menu'.

- Trade Detail
- Settlement Projections by Member
- Funds Projections by Bank
- Actual Settlements by member
- Funds Settlements by bank
- Failed Settlements
- Trade Import Exception Report

The following reports are produced using the 'Billing' option on the 'DCS Main Menu'.

#### Billing Detail report

The following Statements/Reports are produced using the 'Account Position and Information' option on the 'DCS Main Menu'.

- Record Date
- Account Statement

## Electronic Contracts

تثبيت بيانات الرقم المرجعي

REGISTRY

مركز ايداع الأوراق المالية

٢٠٠٠/٠٢/٢٥

CLIENTS\_REF

شاشة تثبيت الرقم المرجعي للعملاء

نظام العملاء

رقم المركز

رقم العميل

لقب العميل

اسم العميل

نوع العميل

فئة العميل

الجنسية

العنوان

تم تثبيت السجل

تثبيت السجل

خروج تخزين << < > >> استفسار

Enter value for : CLIENT\_NO

Record: 1/1

## Broker\_ref

إدخال الوسطاء

REGISTRY

مركز ايداع الأوراق المالية

٢٠٠٠/٠٢/٠٢

BROKER010

شاشة إدخال الوسطاء

نظام العملاء

رقم الوسيط

السجل التجاري

اسم الوسيط

اسم الوسيط الانجليزي

رمز الوسيط المعتمد

فئة الوسيط

رأس المال

البلد

الرمز البريدي

العنوان

نوع الترخيص

رأس المال المصرح به

المدينة

صندوق البريد

التليفون

البريد الالكتروني

صاحب الارتباط

الفاكس

خروج تخزين < > إستعلام إضافة

Record: 1/1

## Broker010

تثبيت العملاء

REGISTRY      مركز إيداع الأوراق المالية      ٠٢/٠٣/٢٠٠٠

CLIENT\_REF      شاشة إدخال العملاء      نظام العملاء

لغة التخاطب:      نوع العميل:      رقم المركز:      لقب العميل:      اسم العميل:      فئة العميل:      الجنسية:      وثيقة الجنسية:      البلد:      الرمز البريدي:      العنوان:      تلفون:      البريد الإلكتروني:

رقمها:      المدينة:      ص.ب:      فاكس:

تم تثبيت السجل      تثبيت السجل

خروج      تخزين      <      >      إستعلام

Record: 1/1

## Client Confirm

إدخال العملاء

REGISTRY      مركز إيداع الأوراق المالية      ٢٠٠٠/٠٣/٠٢

client010      شاشة إدخال العملاء      نظام العملاء

لغة التخاطب:      نوع العميل:      رقم المركز:      لقب العميل:      اسم العميل:      فئة العميل:      الجنسية:      وثيقة الجنسية:      البلد:      الرمز البريدي:      العنوان:      تلفون:      البريد الإلكتروني:

رقمها:      المدينة:      ص.ب:      فاكس:

خروج      تخزين      <      >      إستعلام      إضافة

Record: 1/1

## Client Entry

الرقم المرجعي للعملاء

REGISTRY مركز ايداع الأوراق المالية ٢٠٠٠/٠٢/٢٥

CLIENTS\_REF شاشة إدخال الرقم المرجعي للعملاء نظام العملاء

رقم المركز  
لقب العميل  
اسم العميل  
نوع العميل  
فئة العميل  
الجنسية  
العنوان

الرقم المرجعي

خروج تخزين << < > >> استفسار إضافة

Enter value for : CLIENT\_NO

Record: 1/1 List of Values

## Client Ref

تثبيت بيانات الرقم المرجعي

REGISTRY مركز ايداع الأوراق المالية ٢٠٠٠/٠٢/٢٥

CLIENTS\_REF شاشة تثبيت الرقم المرجعي للعملاء نظام العملاء

رقم المركز  
لقب العميل  
اسم العميل  
نوع العميل  
فئة العميل  
الجنسية  
العنوان

الرقم المرجعي

تم تثبيت السجل تثبيت السجل

خروج تخزين << < > >> استفسار

Enter value for : CLIENT\_NO

Record: 1/1

## Clients Ref

**Registry System**

REGISTRY

CLIENTS\_REF

مرکز ايداع الأوراق المالية

شاشة إدخال تعريف العملاء

٢٠٠٠/٠٣/٠٢

نظام العملاء

عمل فوري

لحزون

لصبل

نوع العميل : **فرد (شخص)**

لغة المراسلة : **عربي**

اللقب : **السيد**

اسم العميل :

تصنيف العميل : **فرد**

جنسية :

نوع الوثيقة :

رقم العميل :

رقم الوثيقة :

إضافة

استفسار

>>

>

<

<<

تخزين

خروج

## Clients\_tabs

**الشركات**

REGISTRY

ISSUERS

مرکز ايداع الأوراق المالية

شاشة إدخال الشركات

٢٠٠٠/٠٣/٢٥

نظام العملاء

الاسم التجاري

رقم الشركة

اسم الشركة

اسم الشركة / إنجليزي

الاسم المختصر

رأس المال المكتتب به

تاريخ التأسيس

جنسية الشركة

البلد

الرمز البريدي

عنوان الشركة

تلفون

البريد الإلكتروني

ضابط الإرتباط

رأس المال المدفوع

تاريخ المباشرة بالعمل

أودع

القطاع الاقتصادي

المدينة

صندوق البريد

فاكس

إضافة

استفسار

>>

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<<

تخزين

خروج

Enter value for : ISSUER\_NO

Record: 1/1

## Companies



<b>DEPOSITING, CLEARING AND SETTLEMENT TRANSACTIONS</b>		
<b>Fee structure of the Moldova Central Securities Depository</b>		
OPERATIONS	FEE RATE	COMMENTS
Opening a house account	500 Lei	The first days account opening and activation is not subject to any fees payment
Opening an omnibus account	400 Lei	- “ -
Opening an individual account	100 Lei (for legal persons) 2,5 Lei (for natural persons)	- “ -
Monthly fee for a house/omnibus account	115 Lei (if used) 50 Lei (if unused)	Paid on a monthly basis
Depositing/ Withdrawal	Registrar’s fee + 5 Lei	
Inter-account transfer	1.50 Lei	
Intra-account transfer	1 Lei	
Blocking	1.50 Lei	For collateral
	5 Lei	Blocking due to other reasons
Processing of MSE trades in the CSD	Fees are not charged (Exchange fees remain the same)	Includes the processing of the data received from the MSE system, clearing and settlement of the transactions reported to the CSD.
Special report requests	1.00 Lei per page Minimum 10 Lei	
Changes to information on the account holder	1Lei	

## Securities Depository Center (SDC) Initial Database Requirements

Initially the SDC will need to establish three interrelated databases. These are the Shareholder database, the broker database and the Issuer /issue database.

### Shareholder Database

This provides detailed information about what securities customers own, share activity that has occurred in each account by security and who the shareholders are within each issue. Reports are also produced from this menu selection that list shareholders by issue (Issue Shareholder Report), position and activity by account number (Account Statement) and activity by account (Account Activity Advice).

Registrant Individual Detail screen are as follows:

Gender - select registrant's gender or marital status from the pull down field. Required Field

Last and First Names - the individual's last and first names in the fill in fields. It is important that the names are entered in this order for recordkeeping and mailing purposes.

ID# - the individual's unique identification number

2<sup>nd</sup> ID# - the individual's 2<sup>nd</sup> unique identification number

Type - Pull down and select the characteristic of the individual

Status - Pull down and select the present condition of the individual

Address - the street address of the individual

City/ Region - Part of address

Postal Code - Part of address

Country - Pull down and select the county where the individual resides

Telephone# - the individual's telephone number

Facsimile# - the individual's facsimile number. (This is not a required field.)

### Issuer Database

#### *Issuers*

Issuer Types - shows choices of issuer entities. Allows user to categorize and define issuers. Example: Corporation

Issuer Status - lists issuer conditions. Allows issuer's present condition to be reflected. Example: Bankruptcy

The following input fields are required to establish an issuer:

- Name- organization's name
- ID# - issuer's unique identifying number

- 2<sup>nd</sup> ID# - issuer's 2<sup>nd</sup> unique identifying number
- Type - form of organization that is issuing the security
- Status - the present condition of the organization issuing the security - pull down field
- Address - organization's address
- City/Region - part of address
- Postal Code - part of address
- Country - name of country where issuer organization is located, pull down field
- Telephone # - type telephone # of issuer organization
- Facsimile # - the facsimile number of the issuer organization- (not required field)

## Issues

Issue Types - lists forms security issues can take. Identifies what security form the user is working with. Example: Common Stock

Issue Statuses - shows issue conditions. Identifies the state a security is in. Example: Publicly Traded

Issuance Types - lists categories of security issuance. Under what situation was a security issued. Example: MPP

- Trading symbol - same as symbol , the unique alphabetical abbreviation for each issue. Required Field
- Issue ID - Type in the unique number that identifies each specific security issue
- Issue ISIN - International Security Identification Number, the number that gives each Romanian security its own unique global identity
- Type - pull down field for the security form that the issue will take
- Issued by - the issuer's organizational ID#. This allows the system to automatically insert in the unlabeled field below the name, address and telephone # of the issuing organization
- Status - pull down field to insert the present condition of the security

Name & Address: Name and address of the issuing company

Name: Name of issue

Symbol: Issue's trading symbol

Issue ID#: Unique number assigned to the Issue for identification purposes

Issue ISIN:	The international identification assigned to the Issue representing Romania
Type:	Identifies the form the security takes
Status:	Security characteristics
As of Record Date:	The cutoff date through which the report is generated.
Total Shares Authorized:	Total number of shares which may be outstanding for this security
Total Shares Outstanding:	Total number of shares in the marketplace, held by the shareholders.
Prepared By:	Name and address of the registry.
Page:	Page Number and Total Pages
Printed:	Date and time when the report was printed.

**Shareholder Report (Detail):**

Record Date:	The as of Date selected in the Shareholder Report Dialog Screen
Trading Symbol:	The Symbol of the Issue selected in the Shareholder Report Dialog Screen
Name:	Issue's Name
Registry Account #:	The Registry's unique identifying number assigned for each account that has a position in the selected Issue
Account Position:	The actual number of shares of the Issue held in each account on the selected record date. The figure in parentheses shows the amount of shares held in that account stated as a percentage of total shares outstanding of the Issue.
Name & Address of the account owners:	Name and Address of the shareholders
Sum of Registry Account Position:	The aggregate total of all the account positions on the report

**RECOMMENDATIONS  
ON ORGANIZATIONAL STRUCTURE  
AND FUNCTIONAL RESPONSIBILITIES  
OF THE MOLDOVA CENTRAL  
SECURITIES DEPOSITORY**

*Price Waterhouse LLP  
Moldova Central Securities  
Depository Project*

*December 22, 1997*

**RECOMMENDATIONS  
ON ORGANIZATIONAL STRUCTURE  
AND FUNCTIONAL RESPONSIBILITIES  
OF THE MOLDOVA CENTRAL SECURITIES DEPOSITORY**

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## I. INTRODUCTION

In November, 1997, Price Waterhouse LLP (PW) published the “Moldova Central Securities Depository Business Specifications”. This report provided an overview of the business operations required of a securities depository and the related computer system functions. A second paper titled “Organizational Structure Plan for Moldova Central Depository” was also subsequently produced by PW. This was also in an overview format, but with a focus on specific operational departments that typically need to be established to support depository’s activities and considering the operational environment of the Moldova Central Securities Depository (CSD). Both the business specifications and organizational structure plan have been presented to and accepted in concept by the Moldovan Stock Exchange (MSE) and the State Commission on Securities Market (SCSM).

This paper builds on the above initial documents by providing detailed information on the responsibilities of the functional areas of the CSD, staffing requirements, workflows and procedures that need to be developed. The recommendations in these areas are based on certain assumptions as described below and developed with the appropriate management at the MSE and the proposed CSD staff.

Initially, it is expected that activity within the depository will be low. For this reason, recommendations within this paper are made based on functional responsibilities rather than a multiple departmental structure. It is expected that the CSD will essentially be the equivalent of one “department” with staff assigned to the various functions. The depository management team will need to continually monitor activity growth and adjust staffing and organizational structure as necessary. Over time, many of the functional responsibilities described within this paper can evolve into designated business and technical operations departments of the depository.

An action plan has been developed and included with this paper for all of the tasks that need to be completed by implementation date. This action plan may be found in Appendix A.

## II. ASSUMPTIONS

In developing the recommendations for the CSD organizational structure, certain business operations assumptions were made (as is done in the creation of any organization). These assumptions were defined based on information provided by the CSD management, and are detailed in the following informational list.

- Implementation date - It is anticipated that the depository system will be implemented by March 2, 1998, with the first trade settlement on March 12, 1998.
- Services to be provided - Based on the business specifications, the depository will provide the following services to its participants:



- Facilitation of trade confirmations
- Deposits of securities under presentation of registrar extracts both to facilitate deliveries against trades and for safekeeping.
- Withdrawals of securities
- Book-entry deliveries against trades
- Corporate actions
- Inter/Intra account movements
- Record keeping of all activity at the depository.
- Reporting of depository account activity to respective participants.
- Cash settlement

Services determine the types of “departments” to be established within a depository. Considering the initial low volumes that are anticipated for the CSD, it is recognized that specific departments will not be established at this time. Rather, the following recommendations on organizational structure are based on functional areas of responsibility.

- Number of participants - There are 56 registered brokerage firms in Moldova. Many of these firms are very small and may not meet requirements for depository eligibility and/or will elect to access the depository through some type of correspondent relationship with larger firms that are depository participants. Some custodian banks may also become participants of the depository.
- Number of registrars - There are currently 46 registrars in Moldova with which the depository could potentially interact.
- Deposit volume - On average, there are approximately 10-12 trades per day in total. The initial deposit volume should equate to one deposit per trade. Additional deposits may be realized through securities to be held in safekeeping. However, this is not expected to be a significant number during the first year.
- Withdrawal volume - It is anticipated that withdrawals will be negligible.
- Corporate actions, including dividends, reorg's, mergers, etc. - These are also expected to be minimal.
- Inter account delivery requests - These requests also should relate to the number of trades which on average is 10-12 per day in total.
- Sharing of resources with Exchange - Since the Moldova Stock Exchange is supporting the initial development of the depository, it is anticipated that certain resources of the Exchange will be used in the beginning. Such resources might include:
  - Information technology staff.
  - Payroll processing
  - Settlement bank account reconciliation

- Administrative services such as space, supplies, equipment
- Physical security
- Surveillance

### III. ORGANIZATIONAL STRUCTURE/FUNCTIONAL AREAS OF RESPONSIBILITY

In developing the organizational structure of a securities depository, consideration must be given to:

- \* Services to be provided to participants
- \* Estimated activity volumes
- \* Division of duties

Services and estimated volumes have been established by the above assumptions. These assumptions along with the division of duties have been considered in grouping related tasks to create functional areas of responsibility for the CSD.

***Note:** “Division of duties” provides for the necessary check points and safeguards against collusion between employees and participants of the depository. Such division of duties is typically a routine requirement of auditing groups and regulators. Therefore, departmental and staff responsibilities must address this issue and comply with international auditing and regulatory requirements. In addition, it is just good business sense to develop these check points and safeguards.*

Based on the above considerations, the following areas of functional responsibilities are recommended for the CSD general staff.

#### A. Depository Operations

The broad category of “depository operations” deals with the day-to-day business processes of the depository services. These processes include:

- **Participant Account Database Maintenance** - As participant accounts are added, deleted or related information changes, the system database of related information must be updated. The business specifications provide for forms or other written instructions to be submitted by participants to the depository to support these updates. The depository operations staff will be responsible for updating the system through use of the “Account Maintenance Screen”, and taking any other appropriate action to maintain the database of participant and individual investor profiles.

Account types that will be maintained under this process are:

- Depository accounts, including individual investor, omnibus and broker house accounts.
- Clearing accounts
- Buy-in accounts/Sell-out accounts

- **Security Masterfile Maintenance** - This includes the administrative functions related to insuring that issues meet the depository's eligibility standards as established by the business rules, adding the security profiles to the system database via terminal input, and updating such profiles based on corporate actions and other pertinent information.

Initially, only equities (corporate stocks) will be eligible in the depository. However, it is anticipated that the types of securities will be expanded in the future. Each time a new security type is added to the system, the CSD management will need to establish standards for admission for that security type. The CSD staff will then follow these standards in adding securities to the database.

#### *1. Administrative Functions*

The security masterfile staff will receive requests to add specific issues to the CSD security masterfile database. These requests may come directly from participants, or other internal areas that support the system users. Such requests should include as much information about the security as is available to the requestor. The security masterfile staff then contacts the issuer and/or its agent to confirm the status of the security, further insuring that the security meets the standards (eligibility criteria) of the depository. .

All research on securities is maintained in the security masterfile area for future reference.

#### *2. Data Input Functions*

Once securities have been determined to be eligible for depository services, the information must be entered to the system database on securities. This is accomplished through terminal access to the security masterfile sub-system via an input screen. The security masterfile staff confirms that the security profile was accepted by the system database.

#### *3. Updates to the Security Masterfile Database*

The security masterfile staff also receives notifications of changes in status of securities. These changes may be due to corporate actions (reorganizations, offers, etc.), or other changes that cause a security to no longer meet the depository eligibility standards.

Information on changes in the status of securities is validated by the security masterfile staff. Appropriate entries to the security masterfile database are then made. Any changes that would cause the security to be deleted are discussed with the CSD and MSE management before action is taken.

***Note:** Securities cannot be immediately deleted if participants have positions in such securities. Action must be taken to clear those positions first. Security Masterfile refers the need for such action to the participant services staff. That area then works with the participants to clear positions. (See also section on “Participant Services.”)*

All records pertaining to changes/deletions to the security masterfile database are maintained in the Security Masterfile area’s files for future reference.

#### 4. Other functions

Besides the above responsibilities, the security masterfile area may be called upon to do eligibility comparisons for potential participants to determine depository service capabilities. This may be an automated comparison or manual process, depending on the volume of securities involved. The function of the security masterfile staff would be to coordinate file comparisons, prepare the manual comparisons, and ensure that results were provided as needed.

Access to the depository eligibility status of securities is available to participants through terminal access to the depository system at the MSE location. The security masterfile staff will publish listings of eligible securities for distribution to all users.

The Security Masterfile area publishes periodical statistical reports related to the maintenance of the eligible securities database for management review. Such reports provide valuable information on the growth of the depository.

- **Participant Services** - The depository must support all participants in the day-to-day processes. This includes resolution of securities positions discrepancies found through reconciliation processes, inquiries about trades and their status, liaison between participants and the depository's information technology group, researching problems/questions related to corporate actions, and the training of participants.

In depositories where volume are high, each participant is assigned a Participant Services Representative to accomplish these responsibilities. In the case of the CSD, supporting the depository participants will initially be a functional responsibility of the Depository Operations area. The following information details further work that can be expected in the area of participant services.

### *1. Reconciliation Process*

It is noted under the business specifications that the participant must compare the information received from the depository to internal records for both house and individual investor accounts. Any discrepancies found are researched at the participant level first. If the participant's internal records are in error, the participant takes steps to correct the differences. If it is found/perceived that an error was made in processing at the depository, the participant is required to report such errors to the depository within a certain number of days.

*Note: The required number of days should be specified in the depository rules.*

It is the depository operations staff that will be notified by participants of such reconciliation problems. The depository must then make the necessary adjustments within an established time frame. It is recommended that this time frame be 48 hours. The Depository Operations staff then must check the participant account on the next morning to ensure that the discrepancy was corrected. Any adjustments that cannot be made within the 48-hour time frame, must be reported to the depository management.

In addition to reconciliation differences as reported by participants, the Depository Operations staff will receive exception reports from the system. Each item on the exception report must be researched, resolved, and adjustments made to the system to clear the exception.

A report should be given to management on a weekly basis, detailing calls from participants, items reported through the exception reports, the types of problems identified, and the resolutions as they relate to day-to-day processing.

### *2. Corporate Actions*

The depository will be responsible for facilitating corporate actions by providing beneficial owner information to the registrar who will pay cash distributions directly to that beneficial owner. CSD will also distribute security entitlements through the depository system to the participants holding positions in the related security.

Participants may have questions concerning the corporate action that they will address to CSD. Through reconciliation processes, the participant may report that the distribution received is not correct. All of these issues must be researched and resolved by the Depository Operations staff. (See also separate section on "Corporate Actions".)

### 3. *General Use of System*

Participants will need assistance from the Depository Operations staff in general use of the system. This will be especially true in the beginning, but the need will continue to some extent as long as the depository exists.

- **Deposits** - Brokers will present forms for securities to be held at the depository. These forms along with transmittal forms, signed transfer forms, and share extracts will be delivered to CSD by courier daily. The CSD Operations staff will check the documents, verify that the securities are eligible for deposit, and enter the deposit into the system.

The appropriate documents are then sent by courier to the registrar by the depository along with any related transfer fees. Once the registrar confirms the change or ownership to the CSD by issuing a new extract, the Operations staff removes the “pending” status that was created at the time of the deposit, establishing a final position in the related depository account.

Deposits may be rejected by the depository due to incomplete or incorrect accompanying forms or ineligibility of the respective security. Registrars may also reject transfers of ownership back to the depository. Such rejected items will be returned to the respective brokers by the depository, explaining the reason for the return.

- **Withdrawals** - Requests may be made to the depository to withdraw securities on deposit. To do so, a broker sends a withdrawal form to the depository by courier or fax transmission. The CSD Operations staff will enter the withdrawal request. If the system rejects the request, a report is produced and forwarded to the broker who will take the necessary further action. If the system accepts the request, registration instructions to the registrar will be produced.

It is the responsibility of the Operations staff to deliver the registration instructions to the registrar, resolve any problems that the registrar may have with the instructions, and follow-up on aged withdrawals as reported by the system.

- **Registrar Interface** - The initial interface with the registrars by the Depository Operations staff will occur at the time of the deposit of securities. CSD staff will need to coordinate the processing of the deposits with the registrar and follow up on any aged items not returned by the registrar. The same is true for withdrawals if there are any.

The staff assigned to the functional responsibility of interfacing with the registrars will receive reports from the depository system to facilitate a reconciliation process. The reconciliation compares the total positions held in the depository to the records of the registrar. Any differences are researched and resolved immediately by the registrar interface staff.

This staff will also coordinate as necessary the receipt of information pertaining to corporate actions that must be processed in the depository for benefit of depository participants. (See also “Corporate Actions”.)

***Note:** CSD should consider negotiating agreements with the registrars to ensure compliance with the needs of the depository, especially if there are no laws or regulations currently in place to support the interactions and time frames needed.*

- **Inter/Intra-Account delivery requests** - The CSD will receive inter/intra-account delivery request forms from the participants. Information on the forms will be validated by the CSD staff and entered to the depository system.
- **Corporate Actions** - While volume is expected to be very low, the business specifications require that CSD accommodate corporate actions on securities held in the depository. CSD will receive notifications of corporate actions from the registrars on a regular basis and take the appropriate actions to pass on the results to participants holding the respective securities.

***Note:** The nominee name of CSD will be the shareholder of record, and, therefore, it is expected that this notification will be received from the registrar under routine procedures to inform shareholders. However, CSD should be proactive in developing relationships with the registrars that ensure timely receipt of such a notice.*

Where the action is a cash distribution, the CSD will provide beneficial owner information to the registrar. The cash payment will then be paid directly to the beneficial owner by the registrar. Where the action results in bonus shares payable to the beneficial owner, or other change in the share position, the depository will update positions accordingly. This will be accomplished through the release of a pending transaction in the CSD system by the operations staff.

The depository operations group will need to research and resolve any problems that arise under this service as reported by the participant. Such problems include, but are not limited to:

- Non-receipt of cash distribution by beneficial holder.
- Incorrect amount of a cash distribution credited to participant's account.
- Receipt of cash distribution by incorrect beneficial holder.
- Non-receipt of bonus shares in participant's depository account.
- Receipt of bonus shares by incorrect participant.
- Incorrect number of bonus shares credited to participant's account.

Adjustments to the CSD system information and/or participant positions as determined through research is done by the depository operations group. Documentation of all problems and subsequent actions are also maintained by this group.

CSD will receive notifications of corporate actions from the registrars on a regular basis. Such information should be received no later than 15 business days prior to the company's book-closing date for input into the depository system. If notification of a corporate action is received from a registrar after the book-closure date, information on participants holding positions at the depository must be recovered manually from system records for the related date, formatted into a report, balanced, and sent to the registrar for further action.

The depository's corporate actions staff also researches and resolves any problems arising from this process. Generally, such problems revolve around balancing the depository's position on the books of the registrar to the participant details as within the depository. Differences may be reported by either the registrar or the participant.

- **Cash Settlement** - The depository system will produce daily Settlement Statement for each participant. This statement reflects the cash amount of be paid to/received from each participant. A copy of the statement will be given to each respective participant. A comprehensive listing will be received by the depository settlement staff and delivered to the settlement bank with the appropriate instructions.

The settlement staff will receive notification from the settlement bank of any unpaid debits to participants by the designated cut-off time. The settlement staff will attempt to resolve these items with participants. Any unusual issues and/or debits that remain unpaid will be referred to the surveillance staff for further work.

As funds are paid and collected, the operations staff will record the movement of cash through the money entry screen of the depository system.

The settlement staff will also balance daily activity within the bank. This will entail completing worksheets, recording cash balances that reflect the day's activity for settlement, buy-in accounts, sell-out accounts, registrar fees collected, participant fund monies, etc. as reported to the system. This must be compared to what the manual records of the operations department reflect. Differences must be identified, controlled through one "out-of-balance" list, researched and resolved by the operations staff.

In addition to processing daily settlement activity, the operations staff will project bank balances for investment or funding purposes. Instructions will then be given to the appropriate party to place an order for the investment with the bank or deposit funds into the settlement bank account to cover any shortfall.



***Note:** This shortfall may be covered by the participant fund, a bank credit line, CSD operating cash, or any other source.*

The Depository Operations staff responsible for cash settlement will also be responsible for making the necessary cash adjustments to the CSD system to reflect the release of monies related to buy-in/sell-outs. As part of this function the operations staff must reconcile the cash in the buy-in/sell-out accounts is equal to the value of the related securities.

Billing funds charged through the settlement figure will also need to be segregated by the settlement staff prior to presenting the settlement figures to the settlement bank.

Reconciliation of settlement records to bank records/statements must be performed by staff other than those performing the daily cash settlement functions to comply to the need for division of duties.

- **Distribution/Mail** - This area would be responsible for the critical function of distributing hard copy reports to participants as necessary on a timely basis. This would mean having the reports sorted and available for local participant pick-up at the depository “window” as well as shipment to out-of-town locations.

The distribution/mail staff would also be responsible for the processing of routine incoming and outgoing mail for the depository.

## **B. COMPLIANCE/SURVEILLANCE/RISK MANAGEMENT/LEGAL**

As a regulated and potentially self-regulated entity, the CSD has risk reduction and oversight responsibilities. Monitoring ongoing participant and security activity in the system as well as ensuring that the depository itself complies with its own rules as well as industry regulations ensures that risk is minimized and the integrity of depository processing is maintained. Related functions in this area may be grouped together. To comply with the division of duties requirement, these functions must be assigned to individuals outside of the other business areas.

- **Compliance** - This area relates to ensuring that the activities of the depository comply with internal business rules as well as external industry and government regulations. This is accomplished through such activities as receiving and reviewing internal audit results, surveillance reports, operational procedures, etc.

- **Surveillance** - The purpose of Surveillance is to monitor ongoing participant and security activity in the CSD system, ensuring that risk is minimized and the integrity of depository processing is maintained.

#### *1. Participant Application Review*

All applications for participation in the depository must be reviewed by the Surveillance staff. Files for all potential participants as developed by marketing and/or any type of membership area are forwarded to Surveillance. These files include all informational forms and agreements that have been completed by the potential participant. Final approval from Surveillance is required prior to the participant account being activated.

The review by Surveillance begins with review of the materials in the file. The Surveillance Specialist checks to ensure that all informational documents have been fully completed, and that all required signatures on agreements and other forms have been obtained.

The Surveillance Specialist then begins an in-depth review of the potential participant to ensure that participant eligibility requirements of both the depository and regulators are met. This includes, but is not necessarily limited to:

- \* Historical financial data on the potential participant.
- \* Current capital and that it meets depository requirements.
- \* Operational/management structure within the firm (infrastructure).
- \* Any historical or current litigation in which the firm is involved and the real or expected judgment etc.

The Surveillance Specialist provides all of the findings of the in-depth research, any recommendations there may be on allowing the firm to become a participant and/or initial Participant Fund deposit requirements (see separate section below), as well as the documents from the marketing/membership area(s) the Surveillance management for final approval.

Once approved by Surveillance, the original membership file is returned to the appropriate party for further processing. All documents related to the investigation performed by the Surveillance Specialist are maintained in the Surveillance files due to confidentiality of information. The Surveillance files are then available to that area for future reference.

Should an application not be approved, Surveillance will provide a reason for the denial. The marketing/membership staff may choose to pursue clarification of conditions with the potential participant. Senior management and often the Legal Department are consulted where the various depository departments cannot come to an agreement on the disposition of the application.

Records on application approvals/rejections are maintained by the Surveillance Department for future reference.

## 2. *Ongoing Monitoring*

Surveillance is also charged with ongoing monitoring of participants and activity within the depository system. The financial conditions and operational practices of participants are monitored on a regular basis. This is accomplished through the review of financial reports as periodically submitted by participants in compliance with depository rules, and annual examinations of participant in-house records by the Surveillance staff at the offices of the participant.

The Surveillance Specialist monitors activity in the depository system to ensure compliance with established procedures and regulations. Where information is received about problems within the company of an eligible security, the Surveillance Specialist researches positions held by participants to ensure that the financial conditions of participants are not negatively affected through the amount of shares held as proprietary. (A severe decline in the value of a security held for the proprietary account may cause the participant to not be in compliance with capital adequacy requirements.)

The Surveillance Department works with industry regulators to accomplish the above monitoring and to investigate financial or operational problems of a participant to which the regulators have been alerted and given notice to the depository. This includes any serious grievances that have been filed with the regulators that have not been addressed by the depository participant.

***Note:** It is extremely important that all grievances submitted by individual investors be addressed first by the depository participant. If calls are received directly by the depository from the individual investors, they must be referred to their brokers and/or custodian banks for actions. The depository should rarely deal directly with the individual investor.*

The Surveillance Specialist takes appropriate actions within his/her realm of responsibility where there are negative findings through the above monitoring. Recommendations are made to the Surveillance management and/or senior management where actions are needed outside the scope of the Surveillance Specialist's authority. The Surveillance Specialist then proceeds as directed by management in taking actions against the participant.

***Note:** Such actions include fines, suspensions, and ceasing to act for a participant as set by the Board of Directors and provided for in the depository rules.*

Subsequent disputes by the participant related to such actions may require that Surveillance work further with senior management and the Legal Department. If the actions include suspending or ceasing to act for a participant, Surveillance instructs the appropriate party on what entries need to be made to the account masterfile database.

Periodic reports on the financial status of individual participants are produced by Surveillance and distributed to the appropriate senior management of the depository.

Records are maintained by Surveillance on all recommendations and actions taken against participants for future reference.

### 3. *Participant Fund*

The CSD depository maintains a Participant Fund (or “clearing fund”) to minimize financial risk to the depository and its participants. The basic required amount to be deposited by each participant is set by the depository’s Board of Directors. The depository’s rules also need to provide for supplemental deposits to be required from a participant if it is believed that the participant is causing unusual risk to the system.

***Note:** Neither of these funds are for the purpose of a guarantee of trade settlement. Rather they are to provide funding in the event that a participant defaults on cash settlement.*

The need for a supplemental Participant Fund deposit is determined through the monitoring done by Surveillance. The Surveillance Specialist alerts the management of Surveillance of any unusual risk, and the participant(s) involved. Based upon the magnitude of the unusual risk, the manager of Surveillance will establish the amount of the supplemental participant fund deposit. Senior management of the depository is notified of the need to require a supplemental fund deposit. Where the unusual risk is deemed to be extremely high, senior management and the Legal Department are consulted on the formula used to calculate a supplemental deposit.

***Note:** The formula to calculate supplemental deposit requirements is not set as a specific formula. This provides flexibility to the CSD management to set the supplemental amount at whatever level provides comfort that the unusual risk to the depository and its participants is eliminated. As the risk is diminished or removed, Surveillance approves the return of the excess funds to the depositing participant(s).*

If a participant fails to meet participant fund requirements, basic or supplemental, the participant is considered to be in default and subject to further action by the depository. This may include temporary suspension of access to the depository until the requirement is met or a decision that the depository will cease to act on behalf of the participant. Surveillance takes or recommends to management such

actions as appropriate. Where a decision is made to suspend participant activity, cease to act for a participant, or de-list an eligible security for cause, Surveillance ensures that the necessary entries are made to the participant account and security masterfile system database profiles.

While the administration of the actual funds may lie with an accounting area, Surveillance reviews reports on Participant Fund deposits for accuracy.

- **Risk Management** - Risk management limits the exposure of the depository corporation to participant failure and other liabilities under routine business operations.

*1. Controlling Risk*

Where the Surveillance Department is charged with minimizing risk in the use of the depository system, the Risk Management staff is responsible for limiting risk to the depository corporation and, ultimately, the users of the depository. This is accomplished through one or more of the following methods:

- \* Acquisition of corporate insurance against negligence, theft, fraud, etc. by employees of the depository.
- \* Development and maintenance of a business continuity/disaster recovery plan for the business areas of the depository (vs. a plan for the technical processing as administered by Information Technology). This includes acquiring an offsite facility in the event that the current offices are not available under a disaster.
- \* Participation in the settlement of individual investor grievances that have not been settled by the depository participant and are related to depository activity.

***Note:** If calls are received directly by the depository from the individual investors, they must be referred to their brokers and/or custodian banks for actions. The depository should rarely deal directly with the individual investor, but must be prepared to do so through Risk Management, the Legal Department, and any other area of the depository.*

- \* An annual review on the adequacy of risk controls in place at the depository. A comprehensive report on this review is provided to senior management. The Risk Management Specialists investigate new methods to contain risk to the depository, its participants, and ultimately to beneficial owners, and make recommendations to management on same. Controls and methods in place are documented and available to Internal Audit, external auditors, and regulators.

- **Legal** - The legal staff ensures that the depository is in compliance with its own business rules as well as industry regulations as well as to provide legal support to all depository activities, necessary legal opinions on day-to-day activities, writing of depository rules, and the application of rules and regulations.

### *1. Day-to-Day Business*

The Legal staff works with all areas of the depository in conducting normal business. Examples of such work include:

- \* Vendor-related agreements.
- \* Participant and settlement bank agreements with the depository.
- \* Negotiating credit lines for the depository.
- \* Representation of the depository in litigation proceedings.

### *2. Depository Rules*

Each time that the depository adds or changes a service, the depository rules must be updated to reflect the change. The business department considering such an action contacts the Legal staff to discuss the intentions. The Legal staff decides whether the action is truly an addition or change to services, or simply a change in procedures as referenced in the depository's rules.

If only a change in procedure is warranted, then CSD simply needs to inform the participants. A formal notice is provided by CSD and maintained on file for future reference.

Where a rule must be added or changed, the Legal staff drafts the language. The draft is reviewed by and discussed with the respective business department(s) to which the rule applies. Once the final language is decided upon, it is filed with CSD Board of Directors and the regulator for approval.

The new service or service change is implemented upon approval from the regulator.

### *3. Application of Rules and Regulations*

Whenever there is a question about the application of the depository rules, industry regulations, or general business law, the Legal staff must be consulted. The Legal staff will make the decision as to whether issues simply need business decisions or have legal implications. Only where an action has legal implications will the Legal staff provide an opinion. The CSD senior management will then make decisions based on the legal opinion provided.

Examples of when the Legal Department is consulted include but are not limited to the following:

- \* Interpretation and application of rules as they apply to services.
- \* Interpretation and application of rules and regulations as they apply to actions against participants that may be taken by the CSD Surveillance area.
- \* Interpretation and application of rules and regulations as they apply to grievances filed by participants and/or beneficial owners.
- \* Additions and changes to services.
- \* Preparation of agreements between CSD and participants, settlement banks, and even registrars if needed.
- \* Work with regulators as needed and as related to the depository environment and processes.

***Note:** It is extremely important that the Legal staff be consulted on and kept well informed about the activities of the depository. It is the Legal staff that is actively involved in arbitration and litigation proceedings. Therefore, the Legal staff must have the background and the foundation on which to represent the depository. This only comes from close work with the business areas of the depository.*

### **C. INTERNAL AUDIT**

The Internal Audit staff ensures internal compliance with depository procedures and policies (including risk controls), and industry standards for operation. This is accomplished through periodic reviews of all depository areas, with reports on findings made to all levels of management and the Board of Directors.

#### *1. Internal Reviews*

The auditors of Internal Audit schedule periodic reviews of each of the depository's business areas. These areas include those responsible for the actual functions of the depository system, such as the operations, Information Technology, marketing, and Compliance. The various areas of Support Services are also audited as appropriate, including the accounting areas, administrative services, corporate security, etc..

Reviews are performed in each area at least once a year. Documented procedures, policies and risk management controls are compared to actual internal practices. Where there are a large number of activities within a department, or where

functions overlap between departments, reviews may be broken down into several reviews throughout the year, each with a smaller focus. Management may also request special audits of areas where it is perceived that there may be a serious operational problem or break in the following of depository procedures and policies.

Reports are issued to management after each review. Included in such reports are the findings of the auditor(s) as well as any recommendations they may have on procedure changes and/or additions. The management of the respective area(s) respond to the audit comments. Where there is disagreement with the findings, the departmental provides support for that disagreement. Where there is agreement on needed changes, the departmental management commits to a target date for implementation of the changes.

## *2. Assistance to External Auditors/Regulators*

Periodic reviews are also performed by external auditors and regulators. Internal Audit also assists these organizations in their work by acting as coordinator with internal departments in obtaining specific information needed by the outside auditors. This reduces time and costs to the depository that are associated with the work of the external auditors and regulators, and ensures that requests by external auditors are reasonable. Internal Audit also assists CSD's management in responding to the reports of external auditors and regulators.

## ***D. MARKETING***

The marketing area is responsible for identifying and contacting prospective participants of the depository. Through such contacts, the marketing staff explains the depository services and the benefits of being a participant.

Besides soliciting new business, this staff also remains in contact with active customers through periodic meetings and telephone calls to ensure that the depository is fulfilling all expectations, and that any problems the participant is encountering in using the depository are addressed quickly. The need for new services from the depository by the customer base is also initially identified through such contacts.

Established depositories normally create a separate Marketing Department. However, it is anticipated that the marketing functions of CSD will be conducted by the management team.

## ***E. INFORMATION TECHNOLOGY***

The CSD computer system is integrated with that of the Molodova Stock Exchange. However, it is expected that the CSD will have a dedicated staff for depository work in this area. This will include system design, programming, testing, installation, and operation of all depository systems.



## ***F. SUPPORT FUNCTIONS***

Support functions would include such areas as:

1. **Payroll** - This encompasses calculating and producing paychecks, processing salary increases, etc.
2. **Accounting Department** - Financial records of the depository corporation would be maintained by the Accounting Department. The processing of payables and receivables would also be the responsibility of this area. This would include the processing of depository billing to participants and the collection of same.
3. **Administrative Services** - This area would be responsible for the purchasing of supplies and office equipment. It would also oversee space planning for the depository staff, furniture, fixtures, and computers.
4. **Security Department** - This area should be responsible for the screening of depository staff members for security clearance and access to depository facilities and systems. Messengers from local participants should also be checked by Security before being granted routine access to the depository. Identification badges allowing access to the depository would be issued by Security.

## ***V. STAFFING***

Based on the above section on functional responsibilities, the organizational structure groupings for the CSD are as follows:

- \* Depository Operations
- \* Compliance/Surveillance/Risk Management/Legal
- \* Internal Audit
- \* Marketing
- \* Information Technology
- \* Support Functions

As a completely independent organization, a depository would normally staff each of the above areas. However, because of the relationship of the CSD to the Moldova Stock Exchange (MSE), it is anticipated that certain functions will initially be transferred to the MSE. Responsibilities expected to be absorbed by the MSE are those related to:

- \* Compliance/Surveillance/Risk Management/Legal
- \* Internal Audit
- \* Support Functions
  - Payroll
  - Accounting - Functions such as participant billing, bank reconciliation, payables, investments, etc.
  - Administrative services - Functions related to space, supplies, equipment, etc.
  - Security

Marketing responsibilities will be assigned to the depository and MSE management as appropriate.

While the computer systems of the CSD and MSE are integrated, the MSE has elected to dedicate three technical staff members to the depository. Considering this and the estimated volumes related to depository operations, the recommended staffing levels for start-up through the first year are:

* Management	1
* Depository Operations	3
* Information Technology (as assigned by MSE)	3
TOTAL	7

Although volumes may be low, questions and problems will be high initially until staff and participants are fully trained. As familiarity with the system and operational procedures improves, volumes will increase. Therefore, it is reasonable to expect a need for 2-3 people to cover all of the depository operations described in the above related section on functional responsibilities.

Depending on the timing of activities, it is very likely that the depository staff will need to be at least three (perhaps more) individuals to ensure that all processes meet CSD and banking deadlines. To accommodate this temporary need throughout the day, CSD may elect to share staff with MSE, moving people between functions of the two organizations as needed. At the very least, MSE staff members should be trained in depository functions to fill in the even of absenteeism and unusual temporary volumes.

Another option to the CSD may to have a staff of part-time and/or temporary help that can be called in to work as necessary.

Management must continually monitor staffing needs within CSD. Changes that impact volumes within a developing depository can occur rapidly, and processes can easily become uncontrollable. It is extremely important that CSD retain the integrity of a high service level by ensuring timely and accurate processing. Since the CSD system will initially be a highly manual environment for many procedures, appropriate staffing is critical to the success of the depository.

## VI. OPEN ISSUES/POLICY DECISIONS

In considering the business specifications and workflows for the CSD, there are a number of policy and procedural decisions that still need to be made that relate to functional processes, and may also need to be included in the business rules. These are:

### ***POLICY***

- \* Selection of settlement bank.
- \* Determination of participant settlement bank requirements (i.e. only one designated bank or multiple).
- \* Eligibility requirements for both participants and securities.
- \* Number of days within which participants must advise CSD of activity and position differences in reconciling internal records to depository accounts. (Otherwise, the depository is not liable for any financial loss to the participant as a result of depository errors.)
- \* Formula for basic participant fund.
- \* Fines, penalties, suspension causes to be provided for in the rules.
- \* Fees to be charged to participants.
- \* Investment policies.
- \* Additional funding through operating cash, reserves, bank credit line.

### **PROCEDURAL**

- \* Forms to be designed -
  - Participant applications
  - Account additions, deletions, changes to be completed by the participant and submitted to CSD for processing.
  - Security masterfile additions, deletions, changes.
  - Cash settlement worksheets
- \* Development and timing of management reports.
- \* Ongoing monitoring of participants and securities in surveillance area and related reporting mechanisms.
- \* Complete documentation of initial business operating procedures.

- \* Settlement bank agreement.
- \* Participant agreement.
- \* Agreement between MSD and MSE where one entity is to provide services to the other.
- \* Establishment of relationships with registrars.

The above list is not intended to be exhaustive. It only addresses immediately identified issues. The CSD management must continually update this list as development of the depository progresses.

## ***VII. SUMMARY AND NEXT STEPS***

Initially, it is expected that the CSD will experience a low volume of activity. The development of separate departments within the depository facility will, therefore, not be necessary. Rather, it is recommended that tasks be grouped into related functional responsibilities as follows:

- \* Depository Operations, dealing with the day-to-day operations of the CSD such as
  - Participant and security database maintenance
  - Participant services
  - Deposits
  - Withdrawals
  - Registrar Interface
  - Inter-account delivery requests
  - Corporate actions
  - Cash settlement
  - Distribution of reports/incoming and outgoing mail
- \* Compliance/Surveillance/Risk Management/Legal
- \* Internal Audit
- \* Marketing
- \* Information Technology (computer systems)

Staff should be assigned to cover each group, with consideration given to time deadlines and volumes. The initial depository staff should be assigned to the daily operations of the depository and service to the participants. The CSD management should include marketing of the depository in their responsibilities. The MSE has elected to transfer three technical staff members to CSD.

The remaining areas of the depository (Compliance, Surveillance, Risk Management, Legal and Internal Audit) may be outsourced by the CSD to MSE. Other staffing options include cross-training MSE staff in depository functions, having a pool of part time and/or temporary help that can be called in during unusual volumes or employee absenteeism. This type of staffing “back-up” will ensure the continuity of depository processing during periods of under-staffing and unusual work volumes.

Considering all of the above, the initial staff for the CSD, including one management person and the three technical people assigned by the MSE, should be 7 employees. This staffing level needs to be closely monitored by the CSD management and adjusted quickly as the depository grows. If this is not done, process at the depository can quickly become uncontrollable.

In addition to organizational structure and staffing, certain policy issues and procedural steps must be addressed. Decisions in these areas need to be made to support operational procedures and business rules in the process of being developed. Price Waterhouse will assist the CSD and MSE management in these areas through implementation of the depository. An action plan may be found in Appendix A to guide this process.

# Jordan Securities Depository Center

## Organizational Structure Plan

Initial Draft – January 5, 2000 – Bill Gorman

This document identifies a structure for the SDC based on the services that the depository must perform. In a large fully operational Depository each service is provided by a department of people whose number would be based on the quantity of transactions being processed. For Jordan's Securities Depository Company (SDC) the anticipated initial volume of business may not warrant creating individual departments. The SDC, however, will be a fully operational depository and, it is important, to insure its success that all services are properly provided and that adequate staffing is available.

### I. Management

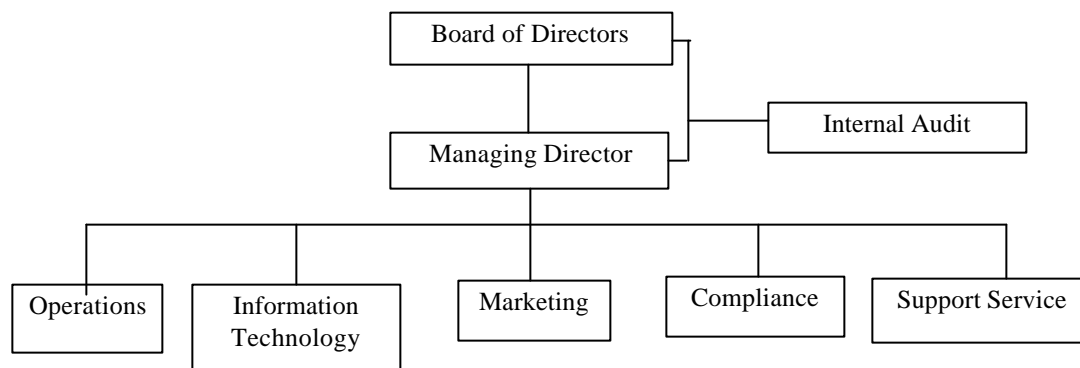
Most depository management functions in a traditional top down manner. Responsibilities and decision-making powers are greatest at the higher levels and the most senior management does policymaking. A recommended structure for the Jordan Central Depository would be:

- Board of Directors (number of persons to be determined)
- Chairman (reports to the Board of Directors)
- Managing Director (reports to the Chairman)

The next level are department managers but initially it should be responsible persons who can insure fast and accurate investor and participant services. The proposed departments are:

- Operations Department
- Information Technology Department (IT)
- Marketing Department
- Compliance Department
- Internal audit
- Support Services

### Jordan Central Depository Organizational Chart



## II. Present Considerations

It will take some time to develop this management structure, although all services must be provided at the beginning of the depository operations. The organization that will be operating the clearing, settlement and depository should be developed based on:

- anticipated workload/ transactions to be processed
- operational costs - how many people are needed to process the business
- locating/training qualified people

### *Department functions:*

#### **A) Operations Department**

Responsible for the day to day services provided by the depository. Insuring processing is completed and any problems that may arise are resolved.

#### **Areas of responsibility include:**

- **Clearing and Settlement**  
Insure each business day trades are processed automatically, resolve any problems, interface with IT area. Insure scrip and funds are matched by system.
- **Registry**  
Insure proper recording of participants' positions to support delivery versus settlement or corporate actions. Interface with Issuer and insure all depository positions are advised. Handle applicable corporate actions and registrar is advised of any participants or beneficial owners by corporate deadline.
- **Issuer Interface**
- **Participant Interface**  
Track and resolve all participant problems. The marketing department may handle this function.
- **Security Master File**  
Working with IT this area would assume responsibility for:
  - maintaining data on eligible securities
  - insure securities meet depository eligibility requirements
  - insure agreements on depository eligibility of securities are in place with registrars and issuers
  - process security deletions due to failure to maintain depository eligibility requirements.
  - provide statistics related to eligible securities

**B) Information Technology Department**

Responsibility includes computer operations, communications, disaster recovery, and future enhancements to software and hardware

- **Computer operations**
  - schedule and run all jobs
  - must know system and be able to schedule software
  - as business increases this could become a shift job, operating 8-16 or 24 hours a day
- **Communications**
  - operating the initial LAN and also the remote access connections
  - troubleshoot problems and provide assistance to brokers with remote terminals
- **Disaster recovery**
  - understand the business needs and processing time requirements and be able to reach in-house or external consultants to resolve problems
  - develop a disaster recovery plan

**C) Marketing Department**

- **Sales**
  - must have good knowledge of depository services and be able to sell these services to perspective participants and also service existing participants
- **Training**
  - knowledge of how the system works and ability to train participant either in-house or at remote locations
- **Membership**
  - process applications for new participants and maintain profile database for all participants

**D) Compliance Department**

- **Surveillance**
  - knowledge of Depository, Exchange and industry rules
  - monitor participants records and financial standing
  - monitor corporate structures/actions and reduce risk



- **Risk Management**

- manage insurance coverage or if self-insured - administrative fund progra

- **Legal**

- develop and enforce participant requirements and regulations
- represent the depository in civil cases

**E) Internal Audit**

Understanding of how the depository works through its systems, procedures and departments. Ability to review books and records and also make recommendations to change or add procedures.

**F) Support Services**

These would include:

- Human Resources
- Accounting
- Administrative (including mail)
- Security

**Additional Considerations**

These recommendations are made for a fully operational depository with a reasonable amount of volume and work generated by its participants transactions. The Jordan CSD will have to determine its initial business and its anticipated future business and provide the necessary staff accordingly.

In addition to the areas already covered a successful depository will attract additional products the marketing areas will have to insure that the systems and services being provided will service the additional products and the growing needs of the industry.

## Possible wording of letter to SDC members:

The Securities Depository Center (SDC) is about to launch a program to automate settlement of securities trades in Jordan. With technical and other assistance provided by the United States Agency for International Development coupled with local Jordanian talent and expertise, we plan on establishing a World-class securities depository that will attract both local and international investors.

Our goals are multi-faceted. The first is to establish a safe, secure environment for investments in stocks, bonds and other securities. We seek to lower the costs and improve the efficiency of trade settlement in Jordan.

The depository will be built in stages so as to enable a graceful and efficient transition from manual clearing and settlement to electronic clearing and settlement. We will describe those stages in a subsequent memorandum to SDC members. We will also provide our members with regular reports on our progress.

This memorandum introduces the first stage of our development program. In this stage, SDC will produce automatically “Security Deeds” (Seller to Buyer Contract and Transfer Instructions – here we should use the name by which the brokers currently identify these documents) for all trades executed through the Amman Stock Exchange’s (ASE) Electronic Trading System (ETS). This will replace the current manual procedures.

Currently trades are settled in the following manner. The selling broker prepares and signs a Security Deed. The Deed contains the name and address of the seller of the securities. It is delivered to the Buying broker. The Buying broker adds the name and address of the buying client to the Deed and is then delivered to the SDC. SDC logs the Deed into the system and verifies it against trade records produced by the ASE. It then delivers the completed contract to the Issuer for transfer on the Issuer’s Share Register.

In the new procedure, the ASE will deliver to the SDC an electronic file containing details of each trade that has been executed through ETS. The SDC will use this information to generate a Security Deed or Settlement Contract (again, use the same name as presently provided). It will insert the name, address and ID number of the buying client and the selling client onto the Deed. Identification of the buying and selling clients will be achieved in the following manner.

Brokers will identify their clients (name, address, National ID or other identifying number, etc.) in the SDC computer system. They will also enter into the system the internal number that they use to identify their clients. Whenever a broker enters an order into the trading system, they will be required to enter their internal client ID number in the ETS “Client Reference Number” field. SDC will use that number to identify the client and to complete the Security Deed.

Brokers will be able to enter client information into the SDC system at any time. We suggest that, prior to the start of automated trading, members should enter this information for as many of their active clients as practical. This will reduce or eliminate the need to enter this information at trade time.

In order to enable the launch of this system, each active SDC member firm will be provided a computer workstation with appropriate software. The workstation is being provided under the USAID funded AMIR program. In addition to supporting current and future SDC services, the workstation will be able to provide real-time market data from the ASE Electronic Trading system ETS should they so choose. Members, of course, should consult the exchange for details on how to access exchange services.

In this memorandum, we are asking members to identify where they wish to have the workstation installed. The USAID funded AMIR Program has installed two pairs of communication lines linking each broker office in the Housing Bank Complex (HBC) to the ASE/SDC/JSC fiber optic network linking the Hamzeh Building to the HBC. Workstations located in HBC can be directly connected to the SDC and ASE systems via this network.

Members may prefer to locate the workstation in an office away from the HBC. The workstation can be connected to the SDC (and ASE) computers via leased telephone lines. Alternatively, the SDC will permit access via dial-up communications although we strongly recommend the use of leased lines.

NOTE: Do we want to mention costs at this point? For example, the cost to install a leased line (through a single central office (Telephone Company)) is 1,000 JD. Usage charges are 316 JD per year. The charges increase when the line passes through multiple Telephone Company offices.

In order to help us properly plan the launch of this service, we are asking each of our members to advise us where they prefer to install the SDC service. Please assist by filling out the attached form.

NOTE: The form would ask for the Broker /Member firm's name, address and telephone number. It should ask for the name (and phone number) of the person to be contacted regarding installation. It should also ask the responding broker to identify where the workstation should be located.

## SDC Web Site

### 1. About SDC

- Who we are
- Our Plans
- Project Timetable
- Frequently Asked Questions
- Newsletter
- Press Releases
- Our Philosophy
- Glossary of SDC products and services

### 2. Annual Report

- Introduction
- Letter to Participants
- Services
- Timeline
- Board of Directors
- Financial Review

### 3. Board of Directors

- Board of Directors

### 4. Clearance and Settlement

- Rules
- Current Procedures
- Future Plans
- Client Identification System
- Electronic Deeds
- Proposal rule changes

### 5. Important Notices

- This Months Notices
- Last Months Notices
- Prior Notices

### 6. Rule Filings (of proposed rules changing)

### 7. Member Directory (SDC Corporate and Municipal Bond directories)

### 8. Need More Info? (ability to e-mail SDC for further information)

#### 9. Virtual Training:

These Virtual Training Sites are being developed for Participants to provide a central place for educational information. They contain high level presentations and allow Participants to "drill down" to access more detailed information.

#### 10. What's New

- New on SDC site
- Seminar Announcement
- Latest Information
- Speeches

#### 11. Press Center

- Press Releases
- SDC fast facts and statistics
- SDC NewsWire
- Glossary of SDC services and products
- SDC timeline
- Executives BIOS
- Subscribe to NewsWire

#### 12. Newsletters

## How to connect a workgroup workstation to the Domain

1. Connect the workstation to the network by connecting the blue cable to the workstation and to the outlet
2. Power the workstation ON.
3. Log on to the workstation as Administrator using sdcadmin as a password
4. Right click on the network neighborhood and click on the protocols Tab
5. Double click on TCP/IP
6. In the IP Address Tab make sure that the option Obtain an IP Address from a DHCP server is selected and if not please select it.
7. Click on OK
8. Click on the Identification Tab
9. Click on the change button
10. Make sure that the computer name does not conflict with any computer that is being done, in fact it would be good to make a sheet of all the names of computers that are done just to make sure that no conflict exist
11. In the Member of section change the option to Domain, and in the blank box type SDC
12. Check the box that is saying Create a computer account in the Domain
13. You should provide an Administrator username (for the Domain) and password to join the computer to the Domain.
14. The Workstation will say welcome to SDC Domain.
15. Click on OK
16. Click on OK
17. Click on OK
18. Restart the workstation
19. Use the username and password provided for the user to log on, make sure to change the Domain name field to SDC.

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File Name: SDC – Flow Chart W6.doc



1. What is the eligibility/approval process for securities to enter SDC?
2. Currently, if securities are generally held in book-entry form at the individual company registrars. Then upon settlement through the SDC, how will securities now be held? Can investors still request that companies issue physical certificates or does the SDC rematerialize the securities if requested?

Registration:

1. Please describe the registration process? Is it automatic on settlement date?
2. In what name are the shares held; is this in the nominee name of the SDC participant or of the beneficial owner?
3. How are shares re-registered?

Financial information (can you please provide the following with dates):

1. total assets
2. total equity
3. value of securities under custody

Historical information:

1. The depository's address for its main office
2. The date the depository was founded
3. The date the depository began operations
4. The depository's ownership structure

Security Form:

1. Which securities are eligible for deposit at the institution?
2. How are securities held at the institution?
3. Are securities immobilized or dematerialized?

General:

1. How many settlement cycles are carried out per day? What are the deadlines for each cycle?
2. Which of the following functions are performed by SDC?
  - Transfer
  - Trade Matching
  - Income Collection/Distribution
  - Clearance
  - Settlement
  - Registration
  - Safekeeping/Book Entry
3. How will securities be identified at SDC? By ISIN?
4. Will there be any penalties for fails?
5. Can you please explain the flow of securities vs. cash movement and highlight the exposures on both sides (ie. intra-day or inter-day risk)?  
When are all security/cash movements final and irrevocable?
6. How does the subcustodian reconcile its position with the depository's holdings? How often and who maintains official records of title and ownership?
7. Can you please explain the process of linkage between the depository participant and the depository, also the process in which an FII appoints a depository participant in the Jordanian market in order to participate.
8. How will SDC be informed of trade instructions?
9. Please explain the pre-matching process.
10. How do scrips move in and out of the client's accounts? Is there netting?

## Participation:

1. Is participation voluntary or mandatory?
2. What is the current number of participants/members?
3. Will the SDC impose a minimum capital requirement? What is this amount?  
And how will this amount be verified? Would it be based on

paid-in-capital?

## Legal Status:

1. What law outlines the legal status of SDC?
2. What type of legal entity is SDC?
3. What guarantees are in place?
4. How much insurance will SDC carry?
5. What will SDC be insured against?

## Regulators:

1. Which regulatory body oversees depository activities?
2. Will the Depository be subject to regular Audit or Regulatory inspection? If yes, please indicate the following:
  - Name of external auditor or regulator
  - Audit cycle (monthly, quarterly, annually)
3. Will the audit cover: (i) Depository Financials (ii) Depository Operations?

The following questions are generally for more developed depositories.

Please answer all that apply.

1. (i) Has this regulator issued any public statement or finding that the depository is not in compliance with any material capital, solvency, insurance or other similar financial strength requirements imposed by the regulator; or, (ii) have you become aware of any such deficiency in the course of your participation in the depository or through your general experience in the market?
2. If such a notice or statement of non-compliance has been issued by the regulator, has it been withdrawn or has it been remedied? If you have otherwise become aware of a deficiency, please describe how the depository has addressed this.
3. (i) Has this authority issued any public statement or finding that the depository is not in compliance with any material internal controls or processes by the regulator; or, (ii) have you become aware of any such deficiency in the course of your participation in the depository or through your general experience in the market?
4. If such a notice or statement of non-compliance has been issued, has it been withdrawn or has it been remedied? If you have otherwise become aware of a deficiency, please describe how the depository has addressed this.

## Settlement and Registration of Electronic Trades

DRAFT – 6 April, 2000

### Order Entry:

1. Broker receives Buy /Sell order from client.
2. Broker sends order to Amman Stock Exchange (ASE) trading floor.
3. Floor Broker enters order into ASE's automated trading system (ATS).
  - a. The Broker's Client Reference number is entered with the order. This is the number that a firm assigns to its client. It is a mandatory field. It must be identified in the SDC Client Identification system. That system assigns a unique SDC number to each client.
  - b. ATS reports orders to the submitting broker's floor terminal at time of entry. The Broker's Client Reference Number appears on the screen report.
  - c. ATS disseminates information about all open orders to all brokers via the ASE/SDC network. No broker or client data is disseminated.
  - d. ATS disseminates order information to the public via Reuters, Access and StockNet Live (SNL). No broker or client data is disseminated.

### Trade Execution:

4. T+0: Deal is struck via the exchange's automated order match (trading) system.
  - a. ATS reports trades to the buying and selling brokers on their Trading Floor workstations immediately upon execution.
  - b. ATS reports each trade to ASE brokers via the ASE/SDC network.
  - c. ATS reports each trade to the public via Reuters, Access and StockNet Live (SNL).
  - d. At the end of each trading day, the exchange delivers to each broker, a printed report listing the trades they executed that day.

### Clearing and Settlement:

5. T+0 The trade data is received by the SDC via diskette from the ASE.
6. Received data is loaded into SDC computer system.
7. SDC system checks if each trade has a valid SDC Client Reference Number.
  - a. Each broker must know the SDC Client Reference Number for each of his clients and must supply accurate Client Reference Numbers to all trades. Brokers who supply inaccurate information may be penalized.
8. Each broker performs an on-line check of his buy and sell contracts via his SDC workstation.
  - a. The buying broker delivers a cheque to the selling broker. The selling broker then confirms the transaction on his SDC workstation.
  - b. If the selling client has a certificate, the broker must deliver it to the Issuer prior to settlement. SDC will deliver certificates for its participants to the issuers on a no obligation envelope-delivery type service.
9. The broker checks if the trade should be allocated to multiple client accounts. NOTE: Allocations are permitted only for approved accounts and as instructed by the buying and/or selling client.
10. The broker on his SDC workstation confirms the contract.
11. The SDC system inserts buying and selling client information (name, SDC number, address, etc.) on a Transfer Deed (contract). SDC prints the Deed and then stamps and signs it and delivers it to the Issuer. No obligation is assumed by the SDC other than to promptly deliver the deed to the Issuer.

### Registration:

12. The shareholder department of the relevant listed company updates its shareholders list (Register) and back-dates beneficial ownership to T. By default, SDC assume the deed is correct unless it is returned to the SDC within three business days.
13. Brokers and Custodians periodically reconcile holdings with the Issuers.

Ziad,

Ref: document dated 10 Apr 2000, To AL-BASHA Z HBME JOM CNC MGR, From TELFER B HBAP ASP CNC MGR, Subject Settlement Flows

The SDC Client Reference Number is assigned by the SDC. It is a unique number that is assigned to every client identified to the depository. Brokers assign their own unique reference number to their clients.

This use of two reference numbers is intentional. Its purpose is to preserve confidentiality of client information and to provide the brokers an easy shorthand method of identifying their clients on each order submitted to the exchange's automated trading system. A client's SDC number is never revealed to the trading system, as brokers use their own client number when submitting orders to the trading system. The broker only for settlement uses the SDC number. Client's, when interfacing with the SDC, will identify themselves via the SDC Client Reference Number.

As mentioned above, the SDC assigns a unique SDC number to each client identified to it. For Jordanian citizens, we use the National ID Number. For all other clients, we are generating a unique randomized number. We are in the initial stages of establishing client numbers. We welcome any suggestions that HSBC and/or its clients might have that would improve our client identification system.

We are not currently generating Electronic Deeds for any trades at this time and cannot do so until our Board and the Jordan Securities Commission have approved the rules and procedures for handling Electronic Deeds. We are however, running the system in a "shadow" mode as an on-going test and verification of the system.

The SDC is not ready to undertake safekeeping functions at this time. We are currently developing software and procedures designed to ensure establishment of accurate and secure Shareholder Registers. These will form the foundation of our depository. We will be providing all of our participants with regular updates through official announcements and via our Web Site [www.sdc.com.jo](http://www.sdc.com.jo) that is currently under construction.

It is correct that the transfer of trade information from the Amman Stock Exchange's automated trading system to the SDC is via diskette. The key reason for this is the fact that the exchange must merge the data from two trading system Archive Files in order to deliver the information we need for settlement. We are hopeful that the exchange will, in the future, be able to provide us these data via a real-time, on-line computer-to-computer link.

I trust that the above answers the questions posed to us. If not, please call, fax or e-mail me. I and the SDC will make every effort to address HSBC's queries as well as those of our other participants. We sincerely appreciate your questions and your support in our development of a "Model" depository in Jordan.

Best regards,

Bill Gorman

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Client Process Model (Arabic Language)

